MILCON Business Process (MBP) formerly “MT” Training

Ft Polk, LA
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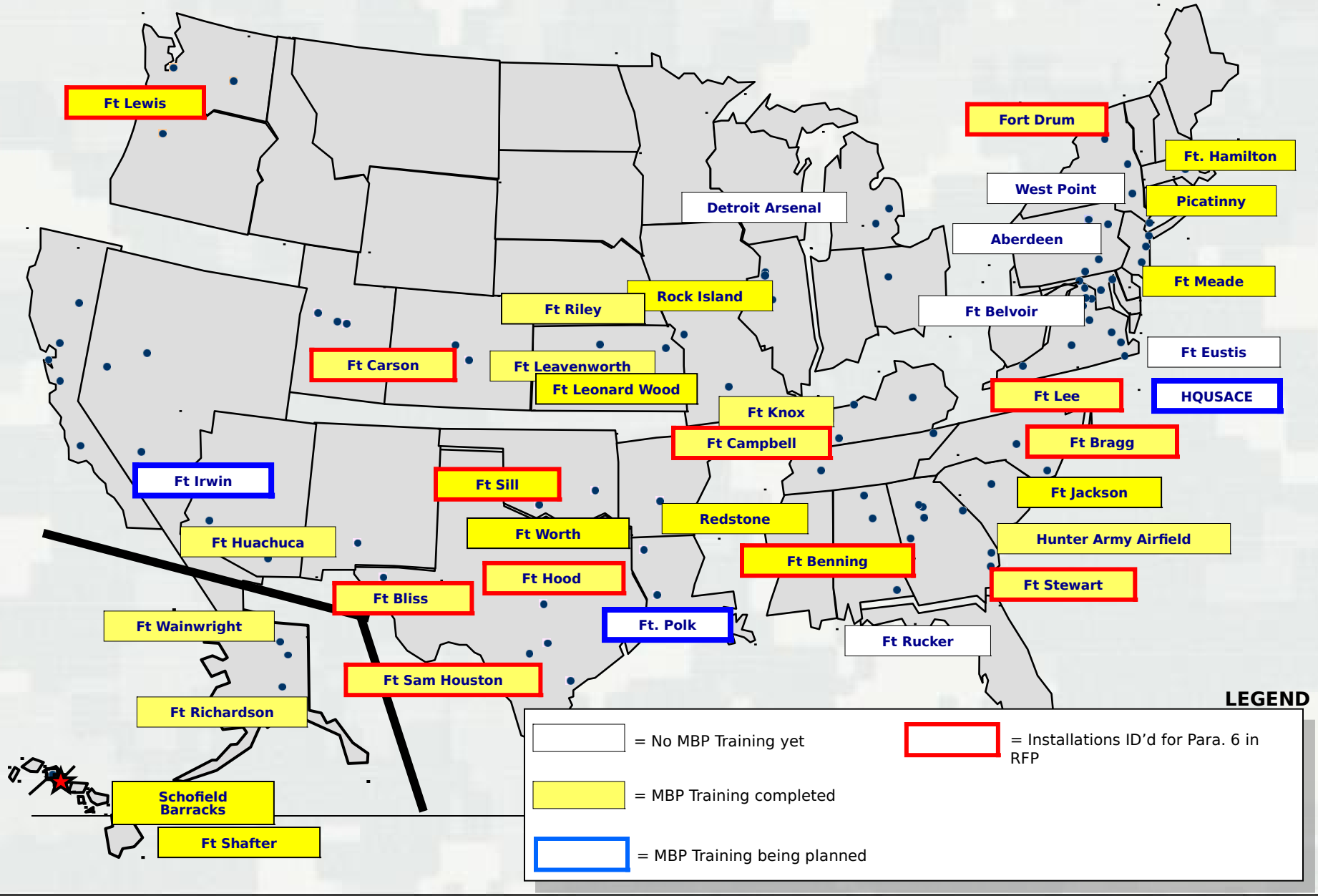
US Army Corps of Engineers
BUILDING STRONG®

MBP Training

- 16 training sessions to date
- Training conducted at the installations
- Garrison & District Commanders attended

MBP Training by Installations



MILCON TRANSFORMATION
An IMCOM HQ Perspective
EXIT

What we have learned

- Few have read AR420-1
- Early BOD has negative impacts on warranty if troops are deployed
- Happy to hear COS are committed to execution.
- Communications continue to improve

MILCON Business Process Training

- ACSIM, IMCOM & USACE developed a training program for IMCOM installation & USACE district staffs.
- Anonymous website for comments & feedback http://www.usace.army.mil/cw/cecwe/commentform.htm
- For more info, visit the COS website https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx
- Please complete and submit the training evaluation at the end of today.

What we will talk about:

(1) Army Facilities Standardization Program

(2) MBP – An IMCOM Perspective

(3) MBP Implementation & Progress

(4) Centers of Standardization (COS)
(4a) USACE & Installations – A partnership for success

(5) USACE Districts Working together-
(5a) COS Standard Operating Procedures
(5b) Post Construction Award Activities

(6) MBP Tools
(6a) 1391 template
(6b) Building Information Modeling (BIM)

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OACSIM

Overview:

Army Facilities Standardization Program

Mr. Barry Bartley
Deputy Program Coordinator for MILCON
Combat Readiness Support Team

Mr. Jack Schupp
Chief, Initiatives Branch &
Facility Design Team Co-Chair
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Direction from Army Secretariat

Develop a strategy and implementation plan to support the major permanent restationing initiatives that the Army will execute.

Overall objective is to provide the ability to establish, reuse/re-purpose facilities with minimum lead-time, leverage private industry standards and practices and to reduce acquisition/lifecycle costs.

… DASA I&H,

Nov 2004

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Army Expectations for AFSP

VCSA: Must have consistent delivery of Army facilities.

Soldiers should have facilities w/same capabilities and features regardless of where they're stationed.

Why don't my facilities look the same from one place to another?

ARSTAF: Facilities must meet functional and operational needs.

[G-3] Functional & operational requirements must reflect Modular & Future Force needs .. Must be relevant to mission

[G-4] How do I ensure what is built will support emerging initiatives and programs?

[G-8] Can the Materiel and Facilities acquisition processes be synchronized to ensure facilities and infrastructure are ready to accept Unit Set Fielding?

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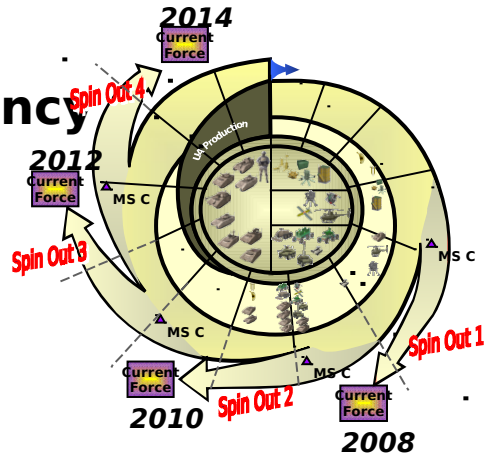
Organizational Outlook – General

- **Facilities focus on functional and operational requirements as primary objective**
- **Brigade centric architecture increasing dependencies on building-to-building (functional and spatial) relationships**
- **Consolidation of functions, tasks, and skills necessitates greater reliance on multi-purpose facilities or space allocation**
- **Technology fielding driving pace & frequency for major or fundamental organizational change *emphasizing* criticality of facility *functional and spatial relationships adaptability***



Hence:

While BCTs serve as the model for standards & criteria, brigade-centricity is the foundation which sets functions and tasks for entire Modular Force

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Equipment & Supply Outlook – General

- **Army strategies and management of equipment and supply substantially changed .. *Repair-by-Replacement* or "turn-in" activities shift to an "on-site" strategy under 2LM* and NMP***
- **Greater demand for prognostic, condition based fault identification**
- **Advanced concepts include "self-healing" or autonomic reconfigurability**
- **Unit deployed storage shifts to brigade staging point in pre-configured containerized loads used daily**
- **E2E* expanding "RFID* tagging" requires facilities with smart technology capabilities *(autonomous reporting via burst transmission)***

Standardized facilities must be smarter, technology enabled, multi-tasked, and flexible enough to accommodate change with less reliance on construction ..

Army solution = Adaptive, multipurpose standards and criteria

* 2LM – Two Level Maintenance NMP – National Maintenance Program
E2E – End-to-End RFID – Radio Frequency Identification

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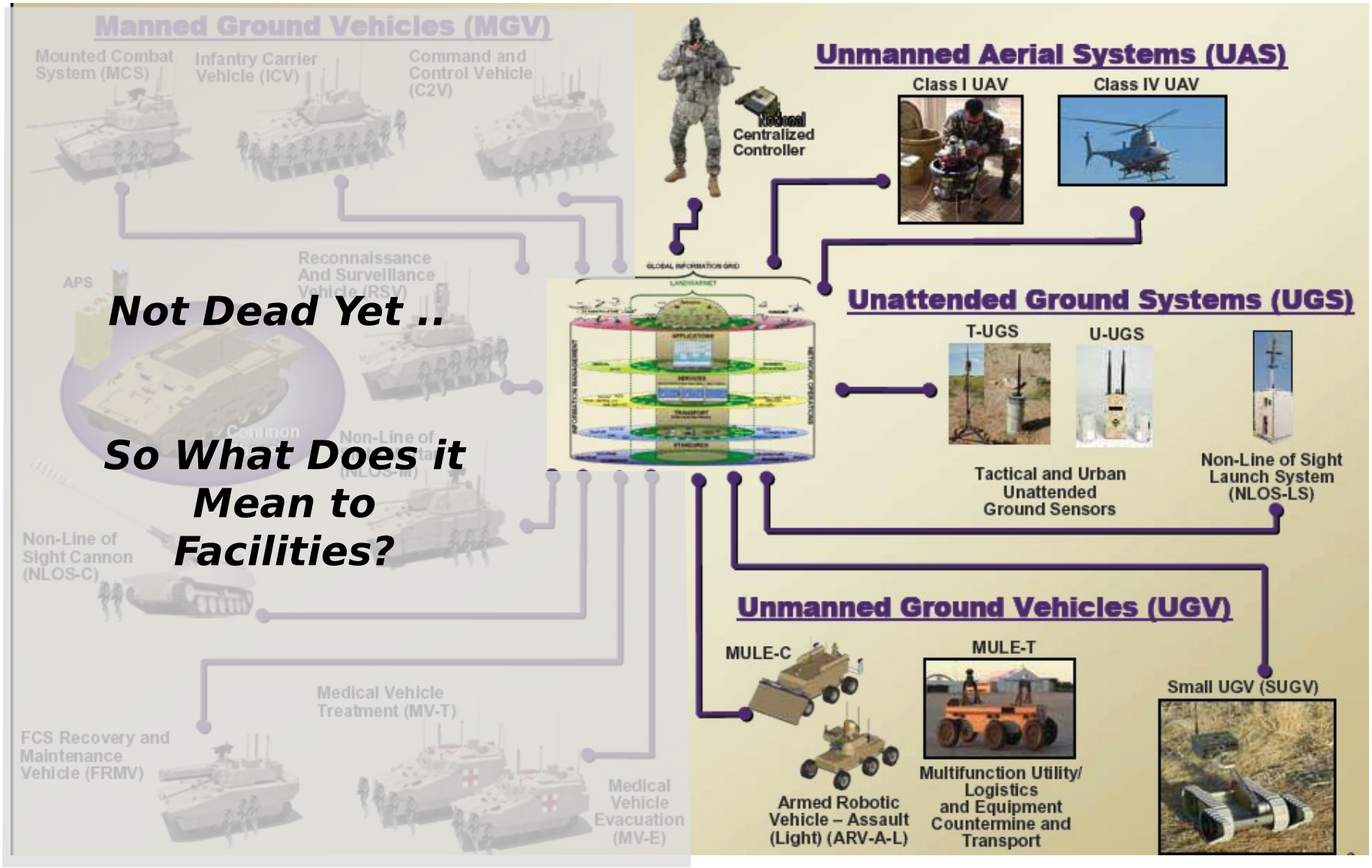
What's Coming in the Not Too Distant Future?

Future Combat System (FCS) Family of Systems (FoS)


Manned Ground Vehicles (MGV)
Mounted Combat System (MCS)
Infantry Carrier Vehicle (ICV)
Command and Control Vehicle (C2V)
Reconnaissance And Surveillance Vehicle (RSV)
APS
Non-Line of Sight Cannon (NLOS-C)
Medical Vehicle Treatment (MV-T)
FCS Recovery and Maintenance Vehicle (FRMV)
Medical Vehicle Evacuation (MV-E)
Not Dead Yet ..
So What Does it Mean to Facilities?
Unmanned Aerial Systems (UAS)
Class I UAV
Class IV UAV
Network Centralized Controller
Unattended Ground Systems (UGS)
T-UGS
U-UGS
Tactical and Urban Unattended Ground Sensors
Non-Line of Sight Launch System (NLOS-LS)
Unmanned Ground Vehicles (UGV)
MULE-C
MULE-T
Armed Robotic Vehicle – Assault (Light) (ARV-A-L)
Multifunction Utility/ Logistics and Equipment Countermine and Transport
Small UGV (SUGV)

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Business Process Outlook – General

- **Primary focus shifts to mission capability versus technical solution**
- **Standardized facilities enable accelerated business and cultural change .. setting conditions for change**
- **Deviation from standard facilities reduces Army capability to forecast change impacts across DOTMLPF domains .. Predict/assess impacts to ARFORGEN, LOGFORGEN**
- **Army Management and performance metrics demand facility "condition" as baseline**
- **Initial MILCON strategy focused on construction delivery metrics .. MILCON Transformation**

Hence:

Standard facilities serving as Army Transformation enabler across multiple business domains .. Standardization Environment = Less tolerance for construction variation, deviation, and tailoring

DOTMLPF – Doctrine Organization, Training, Materiel, Leader Development & Education, Personnel, Facilitie
ARFORGEN – Army Force Generation LOGFORGEN – Logistics Force Generation

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MILCON Process Must Adapt to Substantial Change

Bracing for POM12-16:

- **After unprecedented investments and growth (including MILCON and Installation services) the Army is bracing for changes and hard-decisions coming via POM12-16…there's a new fiscal reality**
  - **Adjusting to significant decreases in OCO funds**
  - **Managing expectations in *normalized* MILCON TOA**
  - ***Ensuring capabilities align with strategic needs***

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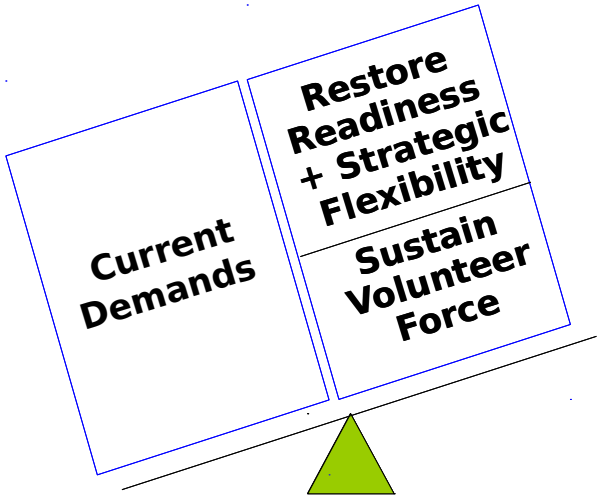
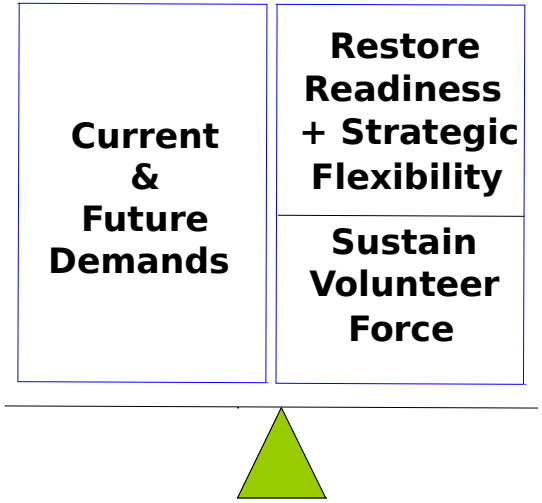
Restoring Balance Across ALL DOTMLPF Domains

Current



IMPERATIVES
- **Sustain**
- **Prepare**
- **Reset**
- **Transform**

Future



- Demand exceeds Supply
- Dwell ~ 1:1 for AC & <1:4 for RC Soldiers
- Irregular Warfare-focused force
- Limited strategic flexibility
- Accelerated equipment wear-out
- Soldier and Family stress

- Growth completed
- Dwell ~ 1:2 for AC & ~1:4 for RC
- Base Realignment complete
- Modular reorganization complete
- Rebalancing complete
- Rotational readiness model implemented
- Full spectrum capable

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MILCON Objectives to Meet Army Priorities

- **MILCON for POM12-16**
  - **Ensuring we get the right Army priorities… post-BRAC, first opportunity to address core Army requirements in some time**
  - **Developing a long-term strategy and facility focus for addressing Legacy shortfalls, aging facilities (i.e. Modernize IAW today's capability needs)**
  - **Avoiding temptation to "gold-plate" or enhance standards beyond what is necessary and mission based…must consider fiscal landscape**

Must leverage lessons learned from MILCON IPT decision format and final transition from MILCON Transformation to the MILCON Business Process

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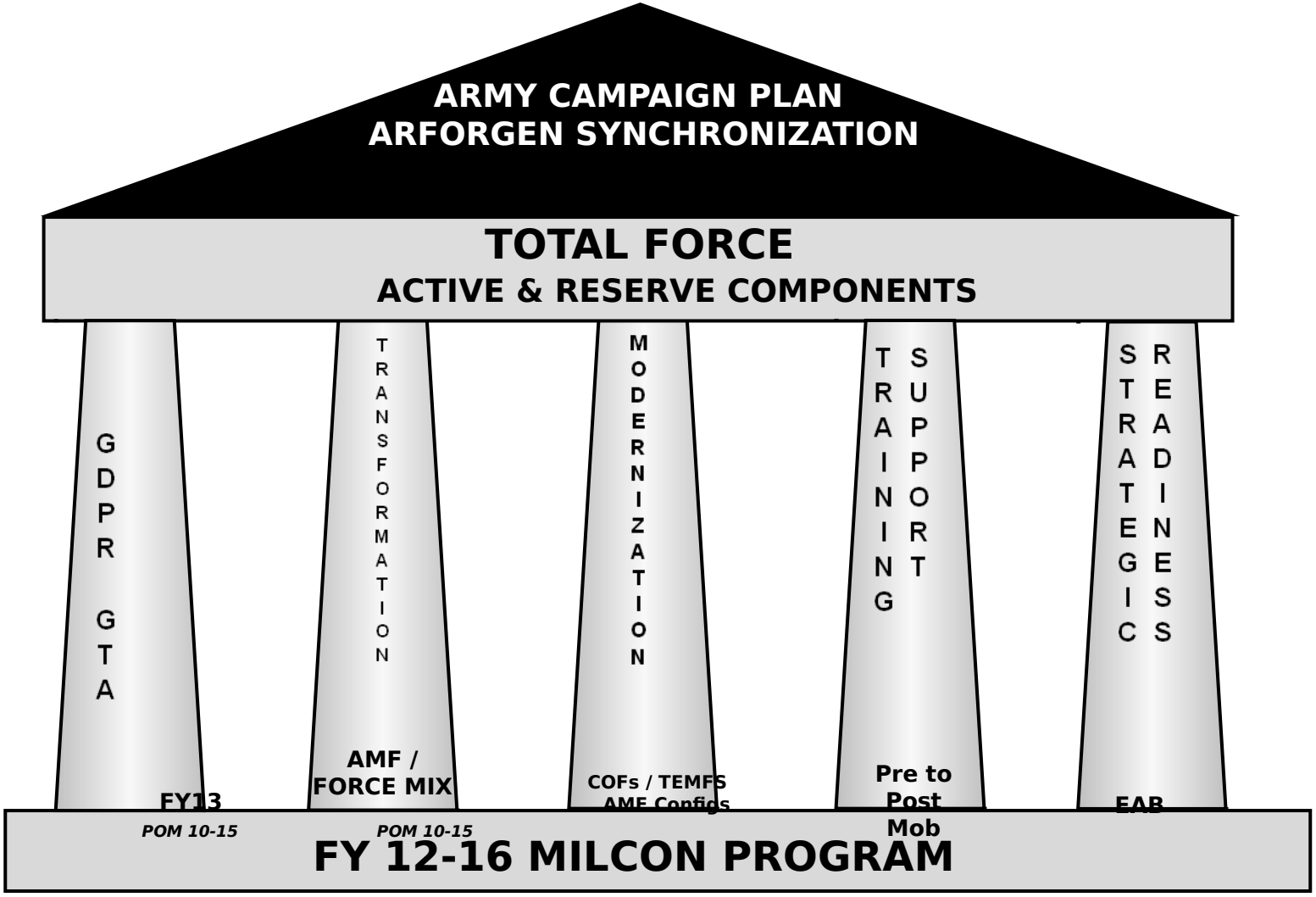
Approved POM 12-16 Program Priorities



Priority from Left to Right

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GDPR / GTA

(Restationing, Growth, Fielding – Applies to AC and RC)

- ***Definition. Military Construction supporting the activation or relocation of an Army unit to include associated enablers***
- **Encompasses and completes previous POM 10-15 initiatives of GDPR and GTA**
- **Categorization Criteria**
  - **Activation must be the result of force structure growth or new capability fielding and not merely reorganization or re-flagging**
  - **Includes all projects currently programmed for GDPR and GTA Management Decision Package (MDEP)**
  - **Recoup of any FY09-10 GRA growth requirements not support by Congress**
- **Programming Priorities**
  - **Actions directed by SECDEF or international agreement**
  - **Actions directed by Army Campaign Plan or other Army Directive**

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Inputs, Priorities And Facility Types

GDPR/GTA

INPUTS

- GDPR E-dates
- GTA E-dates
- QDR (TBD)
  - Europe
    - Germany BCTs
    - Command and Control
  - Korea
  - Leader Initiatives
    - SA, CSA and above
    - UAS, JLENS, THAAD
- Congressional Actions

PRIORITIES WITHIN INITIATIVE

- GDPR Driven
- GTA Driven
- Leader Initiatives
- Other Army Directed Growth or Restationing

TYPES OF FACILITIES

- All types where requirements are driven by GDPR/GTA or leader initiatives
- Includes all projects currently programmed in MDEP EIGP (GDPR) or EGRO (GTA)
  - Facility requirement validated by Army real property inventory and condition assessment systems

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Transformation

(Applies to AC and RC)

- ***Definition. Military Construction supporting the fundamental conversion of Army units, the Army Barracks Buyout Program and future Modularization of Army units***
- **Encompasses the previous initiative of AMF MILCON (AMF / Force Mix)**
- **Categorization Criteria**
  - **Unit Conversion (Force Mix)**
    - **Includes HBCT to SBCT conversions**
    - **Includes RC USAR CS to CSS conversions**
  - **Includes all projects currently programmed for Army Modular Force MDEP**
- **Programming Priorities–**
  - **Force Mix/Restructure Army Aviation**
  - **Perm Party Barracks Buyout FY13 / Training Barracks (BCT/AIT) Buyout FY15**
  - **Includes future ARNG and USAR restationing actions**
  - **Actions directed by Army Campaign Plan or other Army Directive**
- **Prioritization within the Initiative – Force Mix, Barracks Buyout, Army Modular Force, future RC Restationing**

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Inputs, Priorities And Facility Types

Transformation

INPUTS

- Force Mix E-dates
  - HBCT to SBCT Conversion
  - Army Aviation Restructuring
  - Conversion: RC USAR CS to CSS/CSS to CS
- TAA 12-17
- Barracks Buyout
  - Permanent Party by FY13
  - Training (BCT/AIT) by FY15
- *Future AMF E-dates
- *Future USAR/ARNG Restationing
- ACP Directives
  - Operationalizing the Reserve

PRIORITIES WITHIN INITIATIVE

- Force Mix
- Barracks Buyout
- Future AMF
- Currently programmed AMF
- Future RC Restationing
- Other Army Directed actions in support of transformation

TYPES OF FACILITIES

- All types where requirements are driven by Force Mix, AMF or ACP actions
- Permanent Party Barracks
- Training Barracks (BCT/AIT)
- RC: Readiness Centers, Aviation Facilities, Reserve Operation Centers
- Includes all projects currently programmed in MDEP EAMF – Army Modular Force
  - Facility requirement validated by Army real property inventory and condition assessment systems

* Future – Driver is far enough in future that MILCON solution is viable

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Modernization (New Initiative)

(Applies to AC and RC)

- ***Definition. Military Construction supporting the systematic recapitalization of facilities to reduce existing facility shortfalls in both quantity and quality that negatively impacts readiness***
- **Categorization Criteria**
  - **Includes situations where age and/or deterioration of an existing facility results in a quantifiable and credible facility shortfall (utilities, space, structural constraints, installed equipment, IT infrastructure)**
  - **Does not include replacement of adequate, existing facilities merely because of the existence of or update to an Army standard design for that facility type**
- **Programming Priorities – Actions directed by Army Campaign Plan or other Army Directive**
- **Prioritization within the Initiative – based on condition of existing facilities – fix the worst facilities first (quantity, quality and severity of operational / readiness impact)**
  - **AC: Emphasis on COFS/TEMFS**
  - **RC: Modernization of facilities to support units in AMF Configurations**

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Inputs, Priorities And Facility Types

Modernization

INPUTS

- Facility Condition Assessment
  - Quality Shortfall
  - Quantity Shortfall
  - Function Shortfalls resulting from prior transformation of Army units
- Degree of impact on readiness
- Availability of MILCON alternatives

PRIORITIES WITHIN INITIATIVE

- Worst facility first in terms of impact on readiness after mitigation measures are applied

TYPES OF FACILITIES

- AC Emphasis
  - Company Operations Facilities (COF)
  - Tactical Vehicle Maintenance Facilities (TEMF)
  - Hardstands
- RC Emphasis
  - Existing Facilities - AMF Configuration
  - ATFP
  - Principal MDEPs include Revitalization (ERVT) and remaining Focused Facility Strategy (EAFS)
  - Facility requirement validated by Army real property inventory and condition assessment systems

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Training Support (New Initiative)

(Applies to AC and RC)

- ***Definition. Military Construction to support training, training support and training enabling facilities to provide trained and ready forces***

- **Categorization Criteria**
  - **Targets shortfalls resulting from the Army's total training demand in support of ARFORGEN, i.e. the simultaneous execution of Active Component training and Reserve Component (RC) pre to post mobilization training and continued enabling QOL support**
  - **Includes all MILCON programs managed by the TT PEG (Ranges, Training Land, Battle Command Training Facility, Simulation Facility, Training Support Centers, and CTC Modernization Facilities)**
  - **Includes II PEG facilities that enable training such as ORTCs (Operational Readiness Training Complex, barracks and operations facilities) for collective training and mobilization, and AC and RC Institutional Training (excluding trainee barracks)**
  - **Excludes projects already programmed under GDPR/GTA, Transformation or Modernization initiatives**
- **Programming Priorities– ARFORGEN/OIF Drawdown, Actions directed by Army Campaign Plan or other Army Directive**
- **Prioritization within the Initiative –**
  - **G-3 provides priority for TT PEG projects and other projects priority is based on severity of operational and/or readiness impact if project is not provided**
  - **Based on condition of existing facilities – fix the worst facilities first (quantity, quality and severity of operational /**

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Inputs, Priorities And Facility Types

Training Support

INPUTS

- ARFORGEN
- ACP Directives
- OIF Drawdown
- Simultaneous AC/RC Training Requirements
- Projects to be funded under GDPR/GTA-Transformation-Legacy Initiatives
- DP 131 Mobilization Tiger Team
- DP 110 Transitional Training/Provincial Reconstruction Teams
- Enduring Annual Training Surge

PRIORITIES WITHIN INITIATIVE

- Based on severity of operational and/or readiness impact if project is not provided

TYPES OF FACILITIES

- Training Ranges, Live Training Facilities (i.e. Urban Operations & Training Land (MDEP VSRM)
- Training Support Facilities
  - Training Support Centers, Simulation Fac, Battle Command Training Centers (MDEPs TBAS and TBWG)
- CTC Modernization Fac (MDEP TCNT)
- Facilities that Enable Training
  - ORTC (Training and Mobilization)
  - Instructional Facilities/Guard Regional Training Institutes (including AST barracks) and USAR Tactical Training Centers
  - ROTC Training Centers
  - Facility requirement validated by Army real property inventory and condition assessment systems

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Strategic Readiness (New Initiative)

(Applies to AC and RC)

- ***Definition. Military Construction supporting Army Technology and the Industrial Base, Installation Logistics Infrastructure and Power Projection (applies to all Components MILCON Appropriations)***
- **Categorization Criteria**
  - **Excludes projects already programmed under GDPR/GTA, Transformation or Modernization initiatives**
  - **Includes maintenance, supply, ammunition and logistical command, equipment concentration sites and control facilities at echelon above the deployable, tactical unit level**
  - **Includes Power Projection Platform projects (Primary and Secondary Force Generation Installations (pFGI/sFGI))**
  - **Organizes APS & ASF into Modular Configurations**
  - **Includes RC Equipment Concentration Sites (ECS), Maneuver Area Training and Equipment Sites (MATES), and Combined Support Maintenance Shops (CSMS)**
- **Programming Priorities– Actions directed by Army Campaign Plan or other Army Directive**
- **Prioritization within the Initiative – based on condition of existing facilities – fix the worst facilities first *(quantity, quality and severity of operational / readiness impact)***

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Inputs, Priorities And Facility Types

Strategic Readiness

INPUTS

- ILI (Installation Logistics Infrastructure) enterprise assessment of Logistic Facility Requirements
- Command submissions of logistic facilities outside current scope of ILI (future iterations of ILI)
- Logistic projects to be funded under GDPR/GTA-Transformation-Modernization Initiatives (primarily for tactical, deployable units)
- Army Power Projection Platform Initiatives
- DP 135 APS (Army Pre-positioned Stocks)

PRIORITIES WITHIN INITIATIVE

- Based on severity of operational and/or readiness impact if project is not provided

TYPES OF FACILITIES

- Logistics Command and Control
- Maintenance Facilities
- Ammunition Facilities
- Supply Facilities
- Includes all currently programmed Power Projection Platform projects under MDEP RJT9
- APS Facilities
  - Facility requirement validated by Army real property inventory and condition assessment systems

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MILCON Outlook Increasingly Dependent Upon AFSP

- **Mandatory requirements establish minimum essential (verifiable) functional & operational capability, capacity, features relationships**
- **Requirements must be balanced against investment strategies with demonstrated/verifiable cost benefit or investment return**

Standards & criteria serve as basis for verifiable requirements balanced against investment cost commitment .. Hence, dependence on AFSP execution under the MILCON Business Process is MILCON IPT imperative

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Standards & Criteria Outlook – General

- Army decisions (3 & 4-star) based on validated requirements using facility standards as common baseline across all DOTMLPF* domains
- Brigade centric architecture increasing dependencies on building-to-building relationships (e.g., COF-TEMF)
- Consolidation of functions and tasks relies on multi-purpose space allocation
- Reducing construction disruption to Soldier and Unit readiness requires capability to adapt to change

Hence:

Facility standards and criteria must simultaneously address past shortfalls, current needs, and future requirements ..
Army Solution = Standardized facilities based more and more on 2020-2025 Army Requirements

•DOTMLPF – Doctrine Organization, Training, Materiel, Leader Development & Education, Personnel

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Army Facilities Standardization Program (AFSP)

Standardize repetitive facility types for Army-wide application that will meet:

- **Warfighter focus .. *Predisposed to functional and operational requirements & priorities***
- **Shift to *"adaptive, multipurpose"* standards & criteria .. *Reduce construction disruption***
- **Generational requirements into the future:**
  - **Address *"yesterday's"* issues**
  - **Baselined on *"today's"* needs**
  - **Flexibility to accommodate or adapt to *"tomorrow's"* requirements**
- **Reduced land area need through multi-purpose criteria habitually by separate buildings in the past**
- **Some requirements still unknown**

Standards and criteria must address future requirements to realize maximum reuse, repurpose ability in the 21st century .. Army target = 2020-2025 Army Requirements

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Army Perspective on MILCON Transformation

Strategic Direction:

- Reuse/repurpose w/o MILCON
- Balanced & consistent delivery across entire Army
- Functionally and operationally relevant standard facilities
- Lifecycle investment

Programmatic Imperatives:

- Quicker, more economical delivery
- Equivalent or better quality
- Meets ACP, ASM, and Force Structure decisions, timelines, & priorities

Army Facilities Stakeholder = VCSA

Army Facilities Customer = OACSIM

Program Beneficiaries = Soldiers & Units

Regulatory Responsibilities:

- AR 5-22 proponency = The ACSIM
- AR 5-10 proponency = G-3/5/7
- AR 420-1 proponency = OACSIM
- AR 420-1 MILCON execution = USACE

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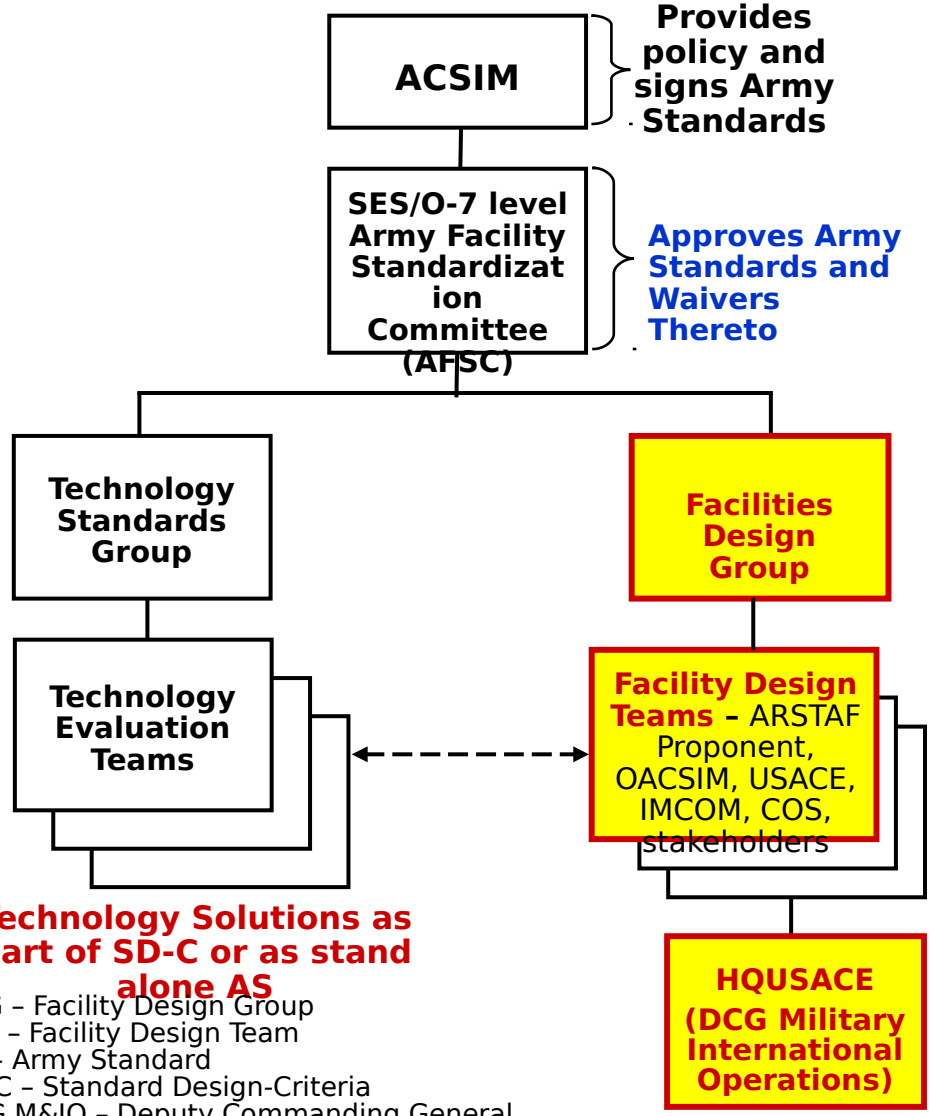
Streamlined Standardization Process – May 2006


ACSIM
Provides policy and signs Army Standards
SES/O-7 level Army Facility Standardization Committee (AFSC)
Approves Army Standards and Waivers Thereto
Technology Standards Group
Technology Evaluation Teams
Facilities Design Group
Facility Design Teams – ARSTAF Proponent, OACSIM, USACE, IMCOM, COS, stakeholders
HQUSACE (DCG Military International Operations)

Technology Solutions as part of SD-C or as stand alone AS

FDG – Facility Design Group
FDT – Facility Design Team
AS – Army Standard
SD-C – Standard Design-Criteria
DCG M&IO – Deputy Commanding General for Military & International Operations, HQUSACE

Primary Responsibilities

Army Standard Signature Authority

Specified Proponent for installation management and facilities standardization; establishes Army authority for AS

Management and Review Authority

Establish corporate policies, business rules, and review of all AS and Waivers; recommend approval by the Specified Proponent as needed

FDG Establishes Programmatic Policy and Provides Execution Oversight

Develop and implement policies governing the AFSP; responsible for enhancement & improvements across all FDTs

- **FDT Approves Design Mandatory Requirements and Reviews SD-C for Completeness**

Features and/or capabilities that must be in every facility of the designated type; Determine SD-C is ready to implement; Review, adjudicate, and recommend AS Waivers for approval by AFSC/ACSIM

Approves Army Standard Designs and Waivers Thereto

Develop and implement technical solution that will be replicated for a facility type; Review, adjudicate, and recommend SD-C Waivers for approval by DCG M&IO

ARMY STRONG

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34 Active Facility Design Teams (a/o Jun 09)

- EAB Command and Control Facilities (DAIM-ODO)
- Brigade Ops Complex (DAIM-ODO)
- GP Warehouse Facilities (DAIM-ODO)
- Central Issue Facility (DAIM-ODO)
- TOE Supply Support Activity (DAIM-ODO)
- Access Control Points (DAIM-ODO)
- Judicial Centers w/ Courtroom (DAIM-ODO)
- Aviation Hangars Complexes [4] (DAIM-ODO)
- Airfield HQ & ATC Tower (DAIM-ODO)
- Aircraft Rinse Facility (DAIM-ODO)
- Tactical Equipment Maintenance Complex (DAIM-ODO)
- Training Ranges (DAIM-ODO)
- Physical Fitness (FMWRC)
- Child Development Center [2]
- Army Lodging (DAIM-ISH)
- Chapels (DAIM-ISH)
- ORTC (DAIM-ISH)
- Warrior-in-Transition Facilities (DAIM-ISH)
- Barracks (DAIM-ISH)
- Trainee Barracks [2] (DAIM-ISH)
- Brigade/Battalion HQ (DAIM-ISH)
- Company Operations (DAIM-ISH)
- Dining Facilities (DAIM-ISH)
- Family Housing (DAIM-ISH)
- General Instruction Facilities (DAIM-ISH)
- Fire Station (DAIM-ODF)
- Consolidated Fire/Police/Safety (DAIM-ODF)
- Museum Restoration Facility (DAIM-ODF)
- Reserve Center (DAIM-ODR)
- Soldier and Family Asst Centers (IMCOM)
- Military Entrance Processing (IMCOM)
- Super In & Out Processing Ctrs (IMCOM)

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25 Approved Army Standards (a/o Jun 09)

- Unaccompanied Enlisted Personnel Housing (May 03)
- Chapels (Jan 04)
- Child Development Centers (Oct 04)
- Access Control Point (Dec 04)
- General Instruction Buildings (Dec 04)
- Army Lodging (Dec 04)
- Company Operations Facilities (Mar 04)
- Operational Readiness Training Complex (Feb 06)
- Army Family Housing (Apr 06)
- Community Service Centers (Aug 06)
- *(Revised)* Warriors-in-Transition Barracks (Jun 08)
- Warriors-in-Transition Unit Headquarters (Jan 08)
- Soldier and Family Assistance Centers (Jan 08)
- BT/OSUT Barracks Complex (Jan 08)
- AIT Barracks Complex (Jan 08)
- Command and Control Facilities (EAB) (Mar 08)
- *(Revised)* Child Development Center (6 Wks to 5 Year-olds) (Mar 08)
- Youth Centers (Mar 08)
- Manned and Unmanned Aircraft Hanger Complex (Mar 08)
- Tactical Equipment Maintenance Facility Complex (Aug 08)
- Initial Entry Training Chapel (Jan 09)
- TOE Supply Support Activity (Mar 09)
- *(Revised)* Judicial Center (Jun 09)
- Aircraft Rinse Facility (Jun 09)
- *(Revised)* Bn-Bde HQ (Jun 09)

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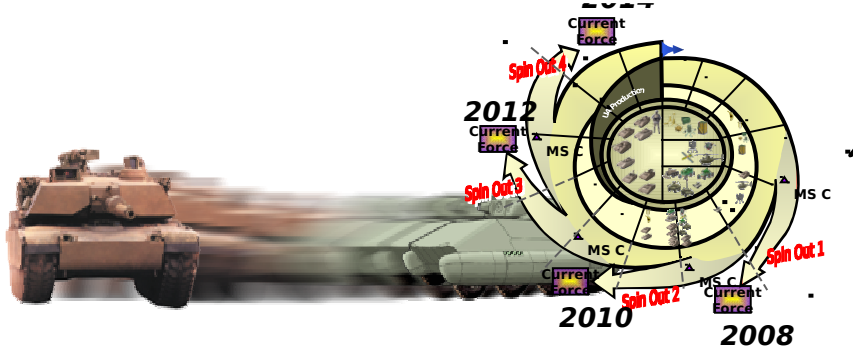
Adaptive, Multipurpose Standards & Criteria

Successful Waivers … identify the *compelling* functional or operational requirement that CANNOT be met without deviation from standards and criteria.



Deviation from standards & criteria requires functional knowledge ..
Army solution = Project deviation that reduces mission capability or scope is a HQDA decision

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2
IMCOM

MILCON Transformation in 2010:
An IMCOM Perspective

4 February 2010

Allan Carroll, PE

Chief, Master Planning, MILCON, Real Property, and Real Estate Branch, PW, DAIM-ISH, HQIMCOM

IMCOM - The Army's Home

Our mission *is to provide the Army the installation capabilities and services to support expeditionary operations in a time of persistent conflict, and to provide a quality of life for Soldiers and Families commensurate with their service.*

Agenda

- 1. 12-15 MCA Program Changes and 16/17 Additions
- 2. Garrison, Region and MACOM role in FYDP development
- 3. Project Prioritization System
- 4. IMCOM Role in defining Facility Requirements
- 5. Project Siting
- 6. RPMP Components
- 7. RPMP new elements
- 8. OMA and OPA tails
- 9. Ownership
- 10. NEPA and Section 106
- 11. References
- 12. User Requested Changes and Waivers

2. Garrison, Region and MACOM role in FYDP development

- The Garrison Real Property Master Plan is where FYDP development begins and ends.

  -Garrisons are responsible for the quality of data in numerous systems essential in developing MCA projects:

    -RPLANS, ASIP, FPS, IFS, ISR, 1391 Processor, and PPS

  - Developing the Installation Master Plan

  - Initiating the 1391.

  - Siting the project IAW the master plan.

  - Garrisons integrate and prioritize mission/BASOPS projects with their Senior Commander in the Real Property Master Planning Board process. Garrisons submit all projects in PPS.

2. Garrison, Region and MACOM role in FYDP development (Con't)

e. Regions integrate and prioritize IMCOM projects across their Region considering all assigned Garrisons and all affected MACOM/ASCC/DRUs. Regions update PPS with th Region priority.

f. HQIMCOM integrates and prioritizes IMCOM projects across all IMCOM garrisons and submits to OACSIM recommended changes to the FYDP and recommended IMCOM additions. Region PA totals generally match their plant replacement value in context to their percentage of all IMCO

Real Property Master Planning Board

- **The RPMPB is normally held twice a year and more often during times of change.**
- **Chaired by Garrison Commander with reps from all tenant activities on Installation**
- **Identifies MILCON projects to be submitted for POM and creates SRM work plan for the year**
- **Is done in sync with Master Plan**

3. Project Prioritization System

The project prioritization system is a web enabled database where Garrisons, Regions and HQIMCOM enter Objective project data and leadership priorities for use in Developing programmatic and leadership MCA project submissions for IPT consideration.

4. IMCOM Role in defining Facility Requirements

- IMCOM is the honest broker for facility requirements using RPLANS and the balanced TAB.

  - OACSIM might cut PA to ensure the Army stays within the TOA each year, but IMCOM submits "lost scope" projects are created to satisfy the requirement. Lost scope projects must still compete and OACSIM must still program so nothing is guaranteed.

  - OSD might decrement by 5% each project PA due to last year's bid savings, but IMCOM will submit "lost scope" Projects if requirements are not met.

- IMCOM will initiate an Above Threshold

5. Project Siting

- Project siting is a Garrison responsibility.
- Siting is complex because of:
  - utility infrastructure impacts
  - environmental concerns
  - clean site concerns and funding (UXO, Chemical rounds, DU, etc)
  - functional relationship to other facilities
  - privatized housing land use

Site Approvals

- Approval authority rests with ***REGION DIRECTOR***
- Approval request includes:
  - Request memo
  - Map showing location selected
  - Copy of pre-construction environmental survey
  - Copy of UXO Survey
- Once approved, only RD or higher authority can approve change
- Near contract award, only ACSIM can approve change
- ***USACE is NOT to begin any work without site approval***

6. RPMP Components

- **RPMP Components:**
  - **RPMP Digest**
  - **Installation Design Guide**
  - **Short Range Component**
  - **Long Range Component**
  - **Capital Investment Strategy**

IDGs/ADGs

- ***Installation Design Guides Provide:***
  - Architectural (Building) Standards
  - Landscape Standards
  - Street Standards
  - **Compliance with IDGs is Mandatory**
    - IDGs have been revised to remove prescriptive language in accordance with MBP
      - If any prescriptive language still exists it shall be identified and removed immediately
    - Mandatory compliance requires that the IDG be included in the RFP. Supplemental ADG should be included if one exists

IDGs/ADGs

- ***Area Development Guides***
  - Provides everyone the opportunity to see the suggested "look" of a specific project or group of projects prior to the solicitation of construction on the actual approved site location.
  - ADGs supplement IDGs, but are not a substitute.
  - ADGs must be in full compliance with the prevailing IDGs

Process for Including IDG Requirements in Model RFP

(as of 22 Jan 20

Installation / USACE District → IMCOM Region / USACE Division → HQ IMCOM / HQ USACE / ACSIM

IDGs and supplemental ADGs when available shall be included in the RFP.

USACE Geographic District, in coordination with COS if applicable, check IDGs and ADGs to ensure no prescriptive language or requirements against criteria exist, and conducts a general project assessment (results provided to Installation upon complet

*** Criteria for Approval:**
1) Achievable within PA
2) Meets milestones
3) Achieves full scope per DD Form1391
4) Best Life-Cycle Cost design
5) Sustainable – SPiRiT GOLD (FY07) LEED SILVER FY08 and beyond
6) Complies with EPACT 05

Project is IDG compliant

Yes → 1

No → Installation prepares and submits package to Regional IMCOM to address actions recommended where project is not IDG compliant and/or Approval Criteria cannot be met *

IMCOM Region coordinates with appropriate USACE Division on regarding courses of action

Region IMCOM, ICW USACE Division, determines most effective course of action and makes adjustments in IDG requirements and / or Approval Criteria within authority to allow RFP Award **

IMCOM Region, ICW USACE Division, can resolve best course of action

No

Yes → 1

IMCOM Region submits their recommended position for higher authority review and approval with supporting justification to HQ IMCOM

HQ IMCOM develops recommended course of action on exceptions to Approval Criteria ICW HQUSACE

Courses of action are within HQ IMCOM and/or HQ USACE

No

Yes → 1

HQ IMCOM submits recommended position on needed exceptions to Approval Criteria requiring HQDA action

HQDA / OACSIM review and approve, if appropriate, requested waivers and/or project adjustments to set facility requirements IAW mission, cost, and standardization requirements.

1

Issue Project RFP and proceed with project -- Approved requirements included in Chapter 6 of Model RFP

**** Allowed Criteria Adjustments**
1. Any IDG requirements adjustment that does not prevent full Army Standar
2. Cost remains within 100% of PA
3. Does not exceed e-dates or delivery milestone schedule by more than 3 m
4. Achieves no less than 85% of project scope but fully meets Army Standard
5. Must use best Life-Cycle Cost design
6. Must achieve – SPiRiT GOLD (FY07) LEED SILVER FY08 and beyond
7. Must comply with EPACT 05 new facility requirements

Abbreviations:
IDG – Installation Design Guide
PA – Programmed Amount for project
RFP – Request for Proposal
USACE – US Army corps of Engineers
COS – Center of Standardization, a USACE district
IMCOM – Installation Management Command
ACSIM – Assistant Chief of Staff for Installation Management
LEED – Leadership in Environment and Energy Design

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030800(R)Mar09

RPMP New Elements

- New areas of emphasis in an installation master
  - Infrastructure Capacity Analysis
  - Comprehensive Energy & Water Master Pla

Include the following items as mandatory in Standard RFPs now to help the Army meet its EPACT 2005 and EISA 2007 energy mandates

Non-water urinals/low flow fixtures
Cool Roof
Solar domestic hot water
Building Orientation
Day-lighting
Ground coupled heat pumps
Building Envelop tighter than .25 cfm/sqft @ 75 PA

Windows with South overhang
Central heating/chiller plants
Added wall & roof insulation
Higher efficiency ductwork
Photo voltaic panels
Windows better U value
Wind power
Lighting - lower power density & occupancy sensors

HVAC with ventilation heat recovery systems
Gray water systems
Optimize HVAC zones
Demand controlled ventilation
Drain water heat recovery systems
Thermostat setback/setforward
Radiant heating in maintenance bays
Thermal storage systems
Energy Star & FEMP rated equipment
Induction & LED exterior lighting
Radiant cooling

Suggest USACE stand up an Energy Center of Excellence for Energy.

7. OMA and OPA tails

- **OMA and OPA tail planning, programming, and execution p**
  - **Captured in a project 1391 TAB.**
  - **Programmed at 5% of PA.**

Unexploded Ordnance

- ***UXO Survey***
  - Conducted by garrison; a must fund OMA bill
- ***Who pays for UXO removal?***
  - IMCOM or land holding command pays; this is an OMA cost, not MILCON.
  - This is taken out of hide as not funds are programmed to cover this expense making it very painful.
  - ***BRACD does not pay for UXO removal!!!!!***
  - UXO data captured in TAB J of DD1391

9. Ownership

- **IMCOM must be involved and own:**

  -The Requirements Analysis process and results.

  - All data elements of the 1391 and all TABS (OMA/OPA Tails, Environmental, Economic Analysis)

  - Planning Charrette results

  - 3086 results

10. NEPA and Section 106

NEPA compliance is NOT the same
as Section 106 compliance, but both
must be complied with prior to MCA
award and ideally prior to being programmed.

NEPA Documentation

- Can include EIS, EA, REC, CX, 404, 106, SHPO, Cultural Resources, etc.
  - Data captured in TAB J of DD1391
  - DD 1391 is official project file of record
- Goal for ***NEPA*** completion is ***1 Oct*** of the year prior to award.
- USACE Goal is 100% of PresBud program Ready to Advertise on 1 Oct of year of execution
- ***USACE CANNOT ADVERTISE WITHOUT NEPA DOCUMENTATION BEING COMPLETED***

11. MILCON and Master Planning References

- ***AR 420-1,*** *Chapter 4, and appropriate annexes and appendices*
- ***10 USC Chapter 169***
  - Subchapter I: Military Construction
  - Subchapter III: Administration of Military Construction and Family Housing Construction
- ***AR 210-20***
- **Master Planning Technical Manual**
- **Army Space Planning Criteria Manual**

12. User Requested Changes and Waivers

Army Standards and Standard designs exist for many facility types.

User Requested Changes and waivers will continue as long as Installation Design Guides and other Master Planning products are interpreted as discretionary.

Contract Options

Per AR 420-1, Chapter 4, Section 4-45(c), Additive Bid Items and Bid Options:

Additive bid items or bid options to be included in a solicitation must be identified during the design process as risk mitigating cost measures, and must be coordinated with the Garrison staff and the user. ***Prior to solicitation, additive bid items and bid options must be approved by the IMCOM Regional Director. For mission facility projects, the IMCOM Region must obtain ACOM, ASCC and DRU endorsement.*** Depending on the current construction bidding climate, high level bid option approval may be necessary and will be implemented under a guidance memorandum.

Key Players in the Change Approval Process

- User *(Represented by Garrison DPW)*
- IMCOM Region Public Works Office
- USACE COS and Geographic District
- USACE HQ, Directorate of Military Programs
- ACOM, ASCC, DRU (e.g. FORSCOM)
- IMCOM HQ, Public Works Division
- ACSIM *(Army Staff Proponent)*
- DASA I&H *(Army Secretariat)*

Policy for Changes

- Army Regulation 420-1, Army Facilities Management
  - *Appendix F: Authority of Approval of Changes to MILCON Projects Funded by MCA, UMMCA, USAHFPA and AFH Appropriations*
  - *Page 380, AR 420-1*

Definitions of Changes

MANDATORY

- Mandatory Change: ***Unavoidable*** changes required to provide a complete and usable facility. *Examples:*
  - ***Design Oversights and Errors***
  - ***Mandatory Criteria Changes***
  - ***Construction Site Conditions***
  - ***Unavailability of Materials***
- Change is ***Necessary*** for Completion of the Project, but not justified by improved efficiency of operation, maintainability, function or appearance

Definitions of Changes:

DISCRETIONARY

- Discretionary Change: ***A change not absolutely required to provide a complete and usable facility that meets OPERATIONAL requirements.***
  - *Criteria Changes that are not Mandatory*
  - *Change would improve efficiency, reduce life cycle cost, maintainability, functionality or appearance of facility*
- Any Change that is ***NOT NECESSARY*** is considered Discretionary
- The number of discretionary changes desired **far exceed** the number submitted.

User Requested Changes

- ***There are two types: Mandatory and Discretionary***
- ***Mandatory*** changes are handled by the contracting USACE District
- ***Discretionary*** changes are approved by ACSIM. Request originates at Garrison and goes through IMCOM chain of command to ACSIM, with coordination of proponent

APPROVAL AUTHORITY: MANDATORY CHANGES

- Approval of all **MANDATORY** changes falls within ***Chain of Command*** of USACE.
  - *Mandatory changes can be approved at any time in the life of a MILCON project, from Design Start through Construction Completion.*
- Final Approval Authority for mandatory changes rests with:

Director of Military Programs, HQ USACE

APPROVAL AUTHORITY: DISCRETIONARY CHANGES

- **Before Budget Lock**
- **After Budget Lock and Before Contract Award**
- **After Construction Contract Award**

APPROVAL AUTHORITY: DISCRETIONARY CHANGES

- ***Before Budget Lock***

  - **IMCOM Region Director** can approve changes during design before budget lock

    1. Change must meet Intent, Scope and Cost approved by HQDA

    1. Change must be coordinated with project's proponent

    1. Change that requires a waiver to an Army Standard or Standard Design will include all waiver request requirements

APPROVAL AUTHORITY: DISCRETIONARY CHANGES

- ***After Budget Lock and Before Contract Award***
  - **IMCOM Region Director** *may approve changes provided* ***ALL*** *Conditions Below are met:*
    1. Changes are in accordance with technical criteria
    2. Changes do not cause CWE to exceed 95% of the PA
    3. Changes are within scope of DD1391 submitted to Congress
    4. Changes do not cause scheduled award date to slip
    5. Total of design changes does not cause increase in original design cost budget for the project
    6. Change is coordinated with appropriate proponent
    7. A waiver approval has been granted if the change requested would affect either an Army Standard or a mandatory design element of an Army Standard Design

APPROVAL AUTHORITY: DISCRETIONARY CHANGES

- ***After Construction Contract Award***
  - ***Authority to approve change rests with the Assistant Chief of Staff for Installation Management (ACSIM)***
  - Change must be validated by IMCOM Region Director and submitted to HQDA (OACSIM (DAIM-ODC))
  - Must include an ***approved waiver*** if change requested would affect an Army Standard or Army Standard Design
  - Change must be coordinated with project's proponent
  - Change request must include CWE spreadsheet from USACE District

USACE Involvement in Discretionary Changes

- Garrison is ***REQUIRED*** to obtain District evaluation of proposed changes to include cost and time estimates and impacts.

- ***Supporting Documentation Required*** Includes:
  - Evaluation and Cost Estimates
  - Recommended Source of Funds
  - Current Project CWE using USACE CWE Spreadsheet
  - List of all known pending changes and claims not yet approved

- Funds to be issued to District by USACE at time of approval

- ***When change involves a waiver to an Army Standard or a Standard Design/Criteria, USACE CoS will provide input and concurrence.***

Relationship to Army Approved Army Standards and Standard Designs and Criteria

- Any change that would cause a ***deviation from an Army Standard or mandatory design element in a Standard Design*** must be identified in the change request package.

- Change package must contain request for a waiver as required by the Army Facility Standardization Program

- If a waiver is not approved, that portion of the change request ***will also be disapproved***, regardless of its merits

Defense Health Program (DHP)

- Any changes in design or construction in a ***Medical MILCON project*** must be evaluated and approved by the **US Army Health Facilities Planning Agency** or **Tri-Service Medical Agency**

Approval Matrix

- ***AR 420-1, Table F-1, Page 381***

- Matrix shows in tabular format the approval authorities for changes to MILCON projects

The Change Approval Process: Discretionary

1. **User identifies requirement for change to design of a facility**

2. **USACE District Provides Required Supporting Documentation:**
   - **Evaluation and Cost Estimates**
   - **Recommended Source of Funds**
   - **Current Project CWE using USACE CWE Spreadsheet**
   - **List of all known pending changes and claims not yet approved**

3. **Garrison prepares memorandum to request change to be routed through IMCOM Region, IMCOM HQ to OACSIM**

4. **Upon receipt of memo, Region coordinates change with project's proponent**

5. **Memo is forwarded to HQ IMCOM for endorsement to OACSIM or rejection of request.**

6. **OACSIM reviews request and approves or rejects change request.**

7. **If approves, USACE is directed to provide funding to cover change based on CWE spreadsheet**

8. **The process is designed to discourage discretionary changes and give OACSIM maximum control of funds.**

Contact Information

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Dale Pedersen	Chief Master Planning Section
Michael Stygar	Chief MILCON Programming Section
Rod Thompson	Chief MILCON Execution Section
Oly Thorson	Chief Real Property Section
Darryl Moses	Chief Real Estate Section

3
USACE

MILCON BUSINESS PROCESS IMPLEMENTATION and PROGRESS

MBP Key # 1

- *Greater emphasis on master pla*

MBP Key # 2

ACSIM determines facility requirements & standards (not installations)

- Develop and maintain the Army Standards ICW ARSTAF & functional proponent
- Functional proponent identifies, defines, prioritizes and adjudicates mandatory requirements in standards and criteria
- Investigate and incorporate model changes

MBP Key # 3

Standardization *of facilities and design processes*

- Develop and maintain facility standards
- Leverage experience/lessons learned

MBP Key # 4

Change how we execute

- Design Build best value
- Industry standards/commercial specs
- Unify the way we contract MILCON & BRAC
- Consistent contracts via the “Wizard” tool
- Use Building Information Modeling (BIM) tools for planning, design and construction.

Expedite facility procurement

MBP Key # 5

Continuous building program means

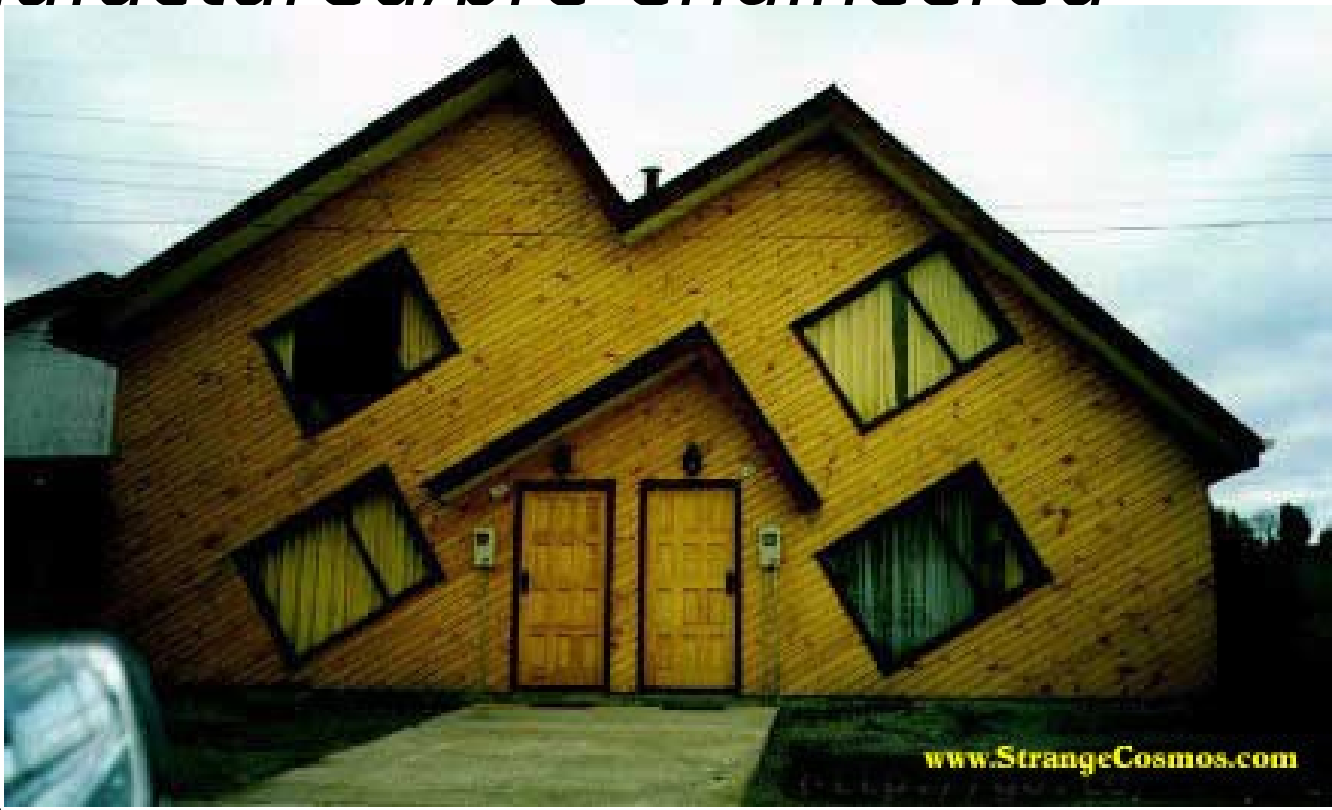
- getting economies of scale,
- locking in suppliers,
- relying on assured workload,
- climbing the learning curve only once &
- passing those savings on to the Army.

Expedite facility procurement

MBP Key # 6

Use of manufactured/pre-engineered bldgs

Expand use of *innovative constructio methods & solutions*



Expedite facility procurement

MBP Key # 7

Teaming with customers and industry.

Industry standards, commercial specs, uniform contracts.

Keys to MBP

1. *Greater emphasis on master planning*
2. *ACSIM dictates facility requirements & standards*
3. *Standardization of facilities & processes*
4. *Change how we execute*
5. *Continuous building program*
6. *Use of manufactured/pre-engineered*
7. *Teaming with customers and industry*

Execution Thru MBP

- **Objectives**
  - Completing a **quality** facility at 100% scope, within the DD1391 Program Amount (PA)
    - Ability to lower unit costs (15% taken off the top for FY07 projects)
  - Reduce time by 30% (cradle-to-grave schedule reduction with construction completed in 15-24 months)
  - Facilities with 25 year repurpose/renovation cycle and a 50 year building/structure life
  - Meet Army sustainability goals… LEED Silver, EPAC 2005, lower lifecycle costs
  - Achieve Small Business goals

Quality Facilities for the Soldier and Family

Execution Thru MBP

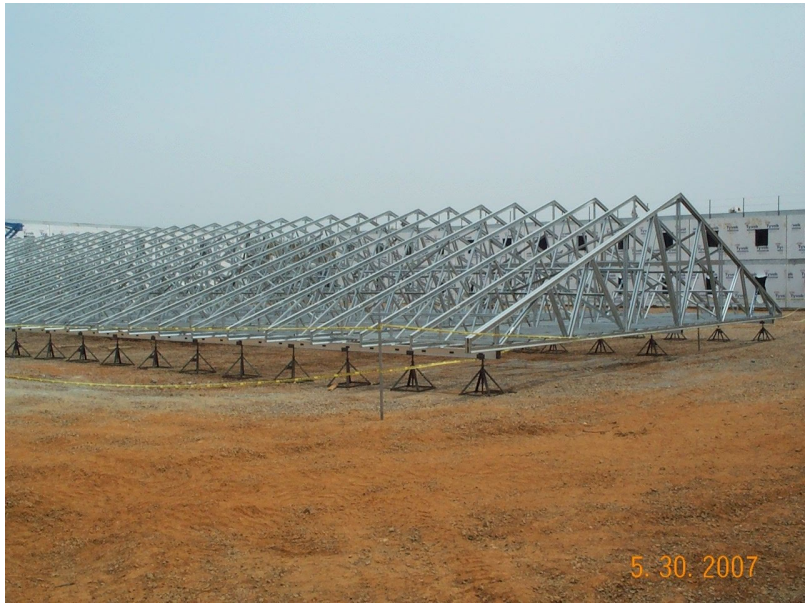
- **How**
  - Use of Performance based requirements: IBC, UFCs, EPACT 2005, LEED
  - Emphasis on Standardization: Designs, Processes, RFPs
  - Centers of Standardization
    - Awarding Army Standard Facilities from eight (8) Centers of Standardization
    - Capitalize on continuous building concepts
    - Working from Design-Build toward Adapt-Build
  - Allowance for all types of construction (I-V), including Modular Building Systems
  - Drive consistency in processes and facilities

Quality Facilities for the Soldier and Family

Progress to date…

- There are challenges but it is WORKING
- We continue to move forward

Ft Campbell, KY - Aviation Barracks



Approach saved 7 wks construction duration and associated labor

Fort Carson, CO TEMF, Company Ops, UEPH (July 2008)

Ft Leonard Wood – Permanent Party Barracks (July 2008)

Fort Lewis, WA

Barracks (June 2009)

Ft Stewart, GA Barracks (May 2010)

Ft Sam Houston, TX 80,000 SF 4,800 PN DFAC

Tilt up construc

MT principles

Wizard RFP

Ft Shafter, HI Barracks

MILCON Business Process projects

- Ft Bliss, TX Feb 2007

Ft Bliss, TX Oct 2008

Fort Bliss TEMF and Barracks

Initial Site Construction – 01 May 2007

MBP project

Ft Bliss UEPH

MBP project

Ft. Bliss DFAC

MBP project

Ft. Bliss CO

FT. Bliss
Brigade/BN H

MBP project

Ft. Bliss TEMF

E&C EVALUATION OF MT PROGRAM FACILITIES

Presentation for COS Management Board

4 Feb 09

James P. Moore, P.E., CCM

USA

CAUTION

127

9-229
9-129

FT. Bliss contractor AAR

- Don’t advertise all contracts at end of FY
- KTRs want Govt completed 2nd task order earlier due to continuous build & used same subs
- KTRs want feedback on proposals
- Partnering session & weekly meetings to coordinate multiple KTRs on same site
- US financial crisis = less private jobs & more interest in Govt projects

Ft. Bliss Garrison AAR

- Don’t use pharmacy in troop aid station
- Delete pay ph. Soldiers have cell ph.
- Armorer leaves door open = condensation & rusting weapons
- Troops drill hole in roof for antenna
- “MT is working. Facilities are exceptional. You guys are doing a good job.”

Summary

- MBP = multiple goals, objectives & expectations.
- MBP = multiple stake holders with interests & needs...sometimes conflicting.
- We have to do more with less resources, less time & less funds.
- Working together we will succeed.
- Failure is not an option.

4

CENTERS OF STANDARDIZATION (COS)

OVERVIEW

COS Assignments & Functional Proponent

Huntsville Center (15)

- **Physical Fitness [CFSC]**
- **Outdoor Sports Facility [CFSC]**
- **Child Development (2) [CFSC]**
- **Youth Activity Centers [CFSC]**
- **Consolidated Fire, Safety and Security Facility [OPMG]**
- **Fire Station [OACSIM]**
- **Army Community Service Center [CFSC]**
- **Bowling Center RFP [CFSC]**
- **Hazard Material Storage [G-4]**
- **Close Combat Tactical Trainer [G-3]**
- **Mil Ops Urban Terrain Facility [G-3]**
- **Training Ranges (Select) [G-3]**
- **Battle Cmd Training Ctr. [G-3]**
- **Training Support Ctr. [G-3]**
- **Medical Facilities [OTSG]**

Louisville District/LRD (2)

- **Operational Readiness Training Complex [G-3]**
- **Judicial Centers & Courtrooms**
- **Museums**

Norfolk District/NAD (7)

- **General Instructional Facility [G-3]**
- **Classroom 21 [G-3]**
- **Enlisted personnel Dining Facility [G-4]**
- **Mil. Entrance Processing Stations [DoD]**
- **Family Housing RFP [OACSIM]**
- **Information Systems Facility [G-6]**
- **Criminal Investigation Facility [G-3]**

COS Assignments & Functional Proponent

Mobile District/SAD (2)

- **Aviation – Vertical [G-4/G-3]**
- **4 Star HQ Facility [G-3]**

Savannah District/SAD (6)

- **Company Operations Facility [G-3]**
- **Tactical Equipment Maintenance Complex [G-4]**
- **Brigade Operations Complex [G-3/G-4]**
- **Brigade/ Battalion HQ [G-3]**
- **Cmd & Control Fac (Div/Corps) [G-3]**
- **Deployment Facility [G-4]**

Honolulu District/POD (2)

- **Unaccompanied Officers Quarters [G1]**
- **Transient Officers Quarters [G1]**

Ft Worth District/SWD (5)

- **Unaccompanied Enlisted Personnel Housing [G-1]**
- **Basic Combat Training Complex/One Station Unit Trainee [G-1]**
- **Advanced individual Training Complex [G-1]**
- **General Purpose Warehouse [G-4]**
- **Central Issue Warehouse [G-4]**

Omaha District/NWD (2)

- **Religious Facilities [OTC]**
- **Access Control Points [OPMG]**

COS priorities

- Execute
- Communicate with MSC & districts
- Leverage support from the rest of USACE
- Meet our adapt build goals
- Continue MBP training

COS Strategy

- Moving away from acquiring facilities one at a time
- MCA Program Execution as a continuous building program
- Maintain strong support to installations through continued geographic district PM and cradle to grave project involvement

COS Standard Designs

- Warfighter focused – priorities on functional and operational scope/needs
- Adaptive – Open-space designs and construction that can be easily modified as missions change.
- Pragmatic - use the best industry practices for sound, economic facilities that can be constructed in the shortest time period

At the Program Level, A COS will…

- Develop/Maintain the facility Army Standard and Standard Designs.

Army Standard

1DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON DC 20310-0600

Army Standard for Tactical Equipment Maintenance Facility Complexes (TEMF)

28 February 2008

Description: Tactical Equipment Maintenance Facilities (TEMF) complex for the maintenance, repair, deployment, mission planning/rehearsal, training, and sustainment of equipment assigned to a unit other than aircraft.

Applicability:

- The TEMF Army Standard applies to the planning, design, and construction of all active Army Tables of Organization and Equipment (TOE) unit requirements worldwide.
- This Army Standard applies to Reserve Component TOEs when fielded as stand alone, dedicated TEMF facilities.
- This Army Standard shall also apply equally to other Tables of Distribution and Allowance (TDA) TEMF not specifically cited above and shall be used to the maximum extent in order to maximize the benefits of standardization and preclude the need to develop a separate Army Standard for TDA application.
- Specific equipment Line Item Numbers and/or Military Occupational Specialties trigger select individual components that are comprised in a TEMF complex. In some cases, a specific TOE (e.g., Brigade Combat Team) will generate a series of TEMF facility components packaged specifically to meet common operational and functional requirements. In all of these instances, the primary source for determining authorized allowances is the Facility Planning System (FPS) contained in the Real Property Planning and Analysis System (RPLANS).

Waivers:

- Only the Assistant Chief of Staff for Installation Management has authority to approve exceptions to the Army Standard.
- Waivers from Army Standards must be requested in accordance with the AR 420-1 and the Army Facilities Standardization Program Charter, latest edition.
- All waiver requests to this Army Standard require COS conflict resolution prior to submission by the Garrison Commander.
- Garrison Army Standard waiver request submissions must be received in sufficient time to allow the Facility Design Team to complete review and development of recommendations or courses of action for the Army Facilities Standardization Committee to consider prior to implementation into project design.
- All Headquarters, Department of the Army (HQDA) approved waivers shall be documented in installation master plans thereby serving as the installations modified standards for the facility type affected.
- Late submissions and/or project delays are NOT sufficient stand alone justification for accelerated review or other dispensation to meeting the Army Standard contained herein.

Army Standard

The Guidance section provides instructions and definitions necessary for the application of the mandatory requirements contained in the tabular section of the Army Standard. As such, they are used in conjunction with the Army Standard in order to ensure the intent and embedded functionality contained herein will meet the Army's mandatory requirements set forth by this standard.

ARMY STANDARD

Item	Mandatory Criteria
Site Selection & Planning	1. The TEMF shall be sited immediately adjacent to the Company Operations Facility (COF) Readiness Module with separation limited to not more than the width of the circulation roadway necessary to facilitate tactical vehicle traffic ingress/egress to the FCC 214 10 primary facility. 2. When organic UAS are assigned to a battalion, the TEMF complex shall be immediately adjacent to the installation training area.
Mission Planning and Physical Security; and Safety	Controlled access to the TEMF and tactical vehicles shall be established between COF admin and readiness modules and encompasses the TEMF perimeter including the organizational vehicle parking apron. When COF proximity to the TEMF is more than 250 feet separation between buildings, a means of establishing controlled access around the entire TEMF Complex perimeter will be developed.
TEMF Complex Footprint	1. For non-BCT organizations, provide battalion-sized TEMF complexes 2. When space allowance calculations for smaller units are less than that permitted for a standard small TEMF facility, the requirements for multiple small units should be consolidated into a logical or functional grouping (e.g., military branch, Battlefield Operating Systems (BOS)) so that the consolidated unit facility is consistent with unit mission deployment flow. Apply one of the four standardized FCC 214 10 facilities based on the combined authorized maintenance/repair level assigned and the space allowances authorized by the FPS. 3. One consolidated brigade-sized complex (includes the BDE HQ, Bn HQ, COF, and TEMF) will be combined in a contiguous area for all Brigade Combat Teams (BCT), Combat Aviation Brigades (CAB), and all brigade-sized organizations intended to deploy (by doctrine) as a single unit. Each brigade-sized complex shall use the one of the four standardized FCC 214 10 facilities, sized in battalion configurations, as indicated below.
Primary Facility Scope and Capacity (FCC 214 10)	Battalion or battalion-equivalent TEMF primary facilities will ONLY be provided in one of the four sizes (see *TEMF Complex Footprint* above, *Guidance Section* below for specific application): Small – 18,000 SF Medium – 35,290 SF Large – 57,031 SF Ex-Large – 74,688 SF

US Army Corps of Engineers ®
Savannah District

DEPARTMENT OF THE ARMY
FACILITIES STANDARDIZATION PROGRAM

TACTICAL EQUIPMENT MAINTENANCE FACILITIES (TEMF)

STANDARD DESIGN

UFC 4-214-02
5 OCTOBER 2007

Revision 2.0 Dated 5 Oct 2007

Army Standard Design

Army Standard Design

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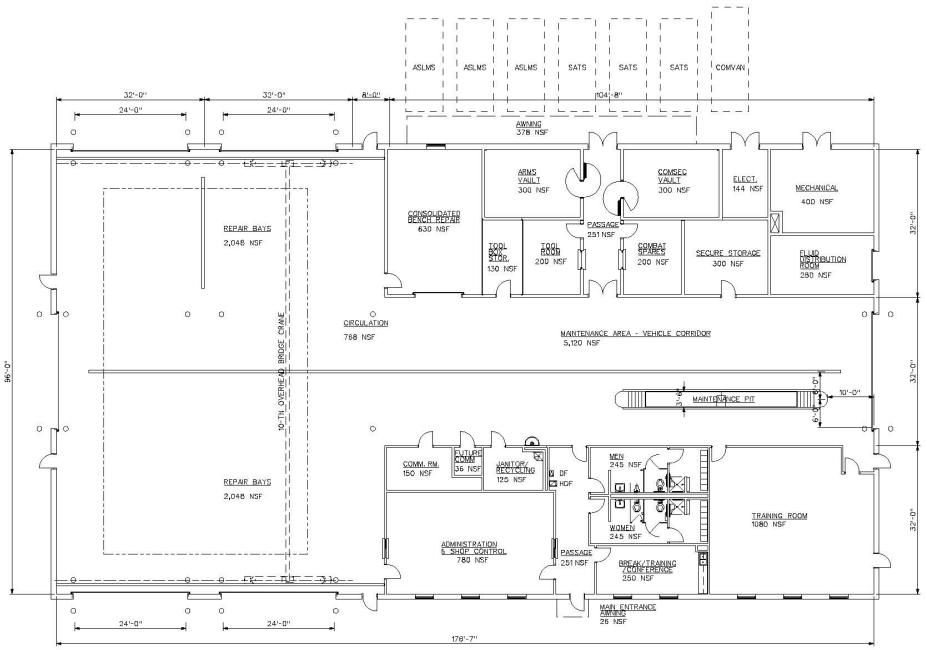
FOR OFFICIAL USE ONLY



FLOOR PLAN

0' 25' 50' 75'

18,000 GSF

FLOOR PLAN INDICATES THE PREFERRED SOLUTION IN SCHEMATIC FORM ONLY. PROPOSER IS ALLOWED TO MAKE ADJUSTMENTS FOR EXTERIOR FACADE/ARCHITECTURAL THEME, AND/OR TO ACCOMODATE SPECIFIC ENGINEERING BUILDING SYSTEMS (STRUCTURAL, MECHANICAL, FIRE PROTECTION, ETC.). THESE ADJUSTMENTS, AS WELL AS ANY FUNCTIONAL DEVIATIONS PROPOSED AS BETTERMENTS, WILL BE EVALUATED BY THE CENTER OF STANDARDIZATION FOR THIS FACILITY DURING SOURCE SELECTION EVALUATION BOARD. INNOVATIVE, COST SAVING SOLUTIONS WILL BE GIVEN PROPER CONSIDERATION, AND WILL BE ADOPTED AS APPROPRIATE.

THIS FLOOR PLAN IS SCHEMATIC ONLY. IT DOES NOT SHOW ALL REQUIRED ELEMENTS AND HAS NOT BEEN COORDINATED FOR STRUCTURAL, MECHANICAL, ELECTRICAL, UTILITY AND OTHER REQUIREMENTS.

US ARMY CORPS OF ENGINEERS SAVANNAH

SYMBOL | DESCRIPTION | DATE | BY

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS SAVANNAH, GEORGIA

DESIGNED BY: | DATE:
DRAWN BY: | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: | CATEGORY CODE:
SIZE: | PLOT SCALE: | PLOT DATE:

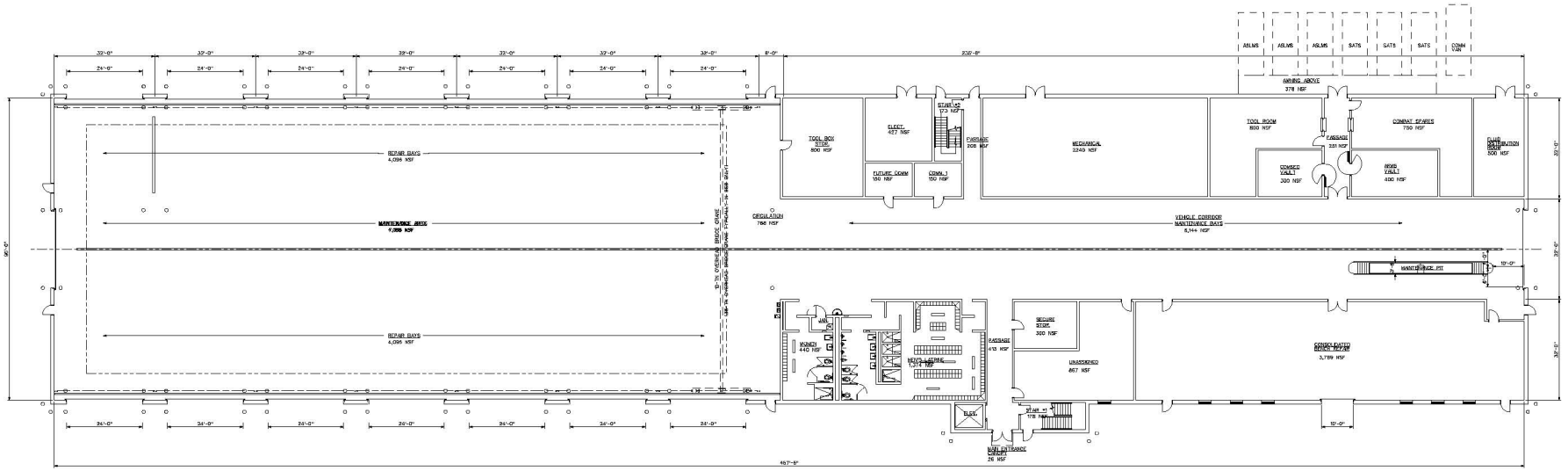
FACILITIES STANDARDIZATION PROGRAM
TACTICAL EQUIPMENT MAINTENANCE FACILITIES

SMALL TEMF
FLOOR PLAN

PLATE REFERENCE NUMBER
A-101
SHEET

$$DGNSPEC$$
$$SYSTIME$$
$$USERNAME$$

Army Standard Design Various Sizes



LOWER LEVEL FLOOR PLAN

0' 25' 50' 75'

LOWER LEVEL	47,014 SF
UPPER LEVEL	10,017 SF
TOTAL SF	57,031 SF

FLOOR PLAN INDICATES THE PREFERRED SOLUTION IN SCHEMATIC FORM ONLY. PROPOSER IS ALLOWED TO MAKE ADJUSTMENTS FOR EXTERIOR FACADE/ARCHITECTURAL THEME, AND/OR TO ACCOMODATE SPECIFIC ENGINEERING BUILDING SYSTEMS (STRUCTURAL, MECHANICAL, FIRE PROTECTION, ETC.). THESE ADJUSTMENTS, AS WELL AS ANY FUNCTIONAL DEVIATIONS PROPOSED AS BETTERMENTS, WILL BE EVALUATED BY THE CENTER OF STANDARDIZATION FOR THIS FACILITY DURING SOURCE SELECTION EVALUATION BOARD. INNOVATIVE, COST SAVING SOLUTIONS WILL BE GIVEN PROPER CONSIDERATION, AND WILL BE ADOPTED AS APPROPRIATE.

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$$DGNSPEC$$
$$SYSTIME$$
$$USERNAME$$

- For more info, visit the COS website https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx

Home - Windows Internet Explorer
https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx
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Centers Of Standardization

US Army Corps of Engineers

Welcome to the USACE Centers of Standardization (COS) website

This website is used by the COS to disseminate all the necessary information related to Military Construction Transformation (MT) process and standard design development. On this site you will find:

- Points of Contact to all the COS and USACE Headquarters
- All the necessary information pertaining to each standard facility type developed to date:
  - Army Standards
  - Army Standard Designs
  - Adapt-Build Model information
  - 1391 Templates
- All pertinent COS policy and procedural documents
- Important website links to other pertinent COS and MT information
  - Some links may be Army/USACE Intranet websites with Common Access Card (CAC) access only

Facility Type Links

Access Control Point (ACP)
Advanced Individual Training Complex
Aircraft Maintenance Hanger (HRG) Complex
Army Community Service Center (ACSC)
Basic Training and One Station Unit Training Complex
Battalion/Brigade Headquarters (BN/BDE HQ)
Command & Control Facilities (C2F) - Division & Corps Headquarters
Company Operations Facility
Consolidated Fire, Safety and Security Facility (CFS)
Criminal Investigation Facility
Drill Sergeant Barracks
Enlisted Personnel Dining Facility
Museums
Operational Readiness Training Complex
Outdoor Sports Facilities (OSF)
Physical Fitness Facility (PFF)
Reception Barracks
Religious Facilities
Soldier Family Support Center (SFSC)

Important Links

- RFP Wizard
- AR 420-01 - Army Facilities Managem
- COS Regional Contract Listing (Intrar
- Value Engineering Library (Intranet)
- MT Execution Process Maps (Intrane
- 2008 USACE OPORDS - FRAGORDS (Intranet)
- 2009 USACE OPORDS - FRAGORDS (Intranet)
- COS SharPoint Website (Intranet)
- Sustainable Design and Development

COS Process Documents

Type | Name | Modified By | Ca

- Category : Charter (2)
- Category : Memos (6)
- Category : PGMP (1)
- Category : SOPs (7)

Local intranet
100%

Home - Command & Control Facilities (C2F) - Division & Corps Headquarters - Windows Internet Explorer
https://eportal.usace.army.mil/sites/COS/C2FDCHQ/default.aspx
Live Search
Home - Command & Control Facilities (C2F) - Division ...
Page
Tools

COS POCs

COS Manager Name	COS Manager Telephone	COS Manager E-mail	Facility Type Technical POC	Facility Type Technical POC Telephone	Facility Type Technical POC E-mail
Tom Brockbank	912-652-5212	Thomas.R.Brockbank@usace.army.mil	Steve Toney	912-652-5960	Steven.V.Toney@usace.army.mil

USACE HQ POCs

HQ Primary POC	HQ Primary POC Telephone	HQ Primary POC E-mail	HQ Secondary POC	HQ Secondary POC Telephone	HQ Secondary POC E-mail
Scott Wick	202-761-7500	Scott.C.Wick@usace.army.mil	David Marquardt	202-761-7419	David.D.Marquardt@usace.army.mil

Facility Type Summary

Facility Type Summary

Army Standards and Standard Design Status:

- Army Standard approved 12 Mar 2008
- Standard Design completed Sep 2007 and continually updated based on lessons learned

Facility Sizes and Options:

- Division/Corps HQ – FCC 14190 – Total: 143,090 GSF

Facility Type Documents

Type	Name	Modified	Description
⊞ Category : **1391 Template** (1)			
⊞ Category : **Army Standard** (1)			
⊞ Category : **Standard Design** (4)			

Local intranet
100%

Home - Windows Internet Explorer
https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx
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Local intranet
100%

MILCON TRANSFORMATION (MT) EXECUTION PROCESS - Windows Internet Explorer
https://ff.cecer.army.mil/rfp_wizard/docs/refs/waiverProcess/MT-WaiverProcessHome.html
Live Search
MILCON TRANSFORMATION (MT) EXECUTION PROCESS
Page
Tools

MILCON Transformation (MT) Execution Process

Site Index:

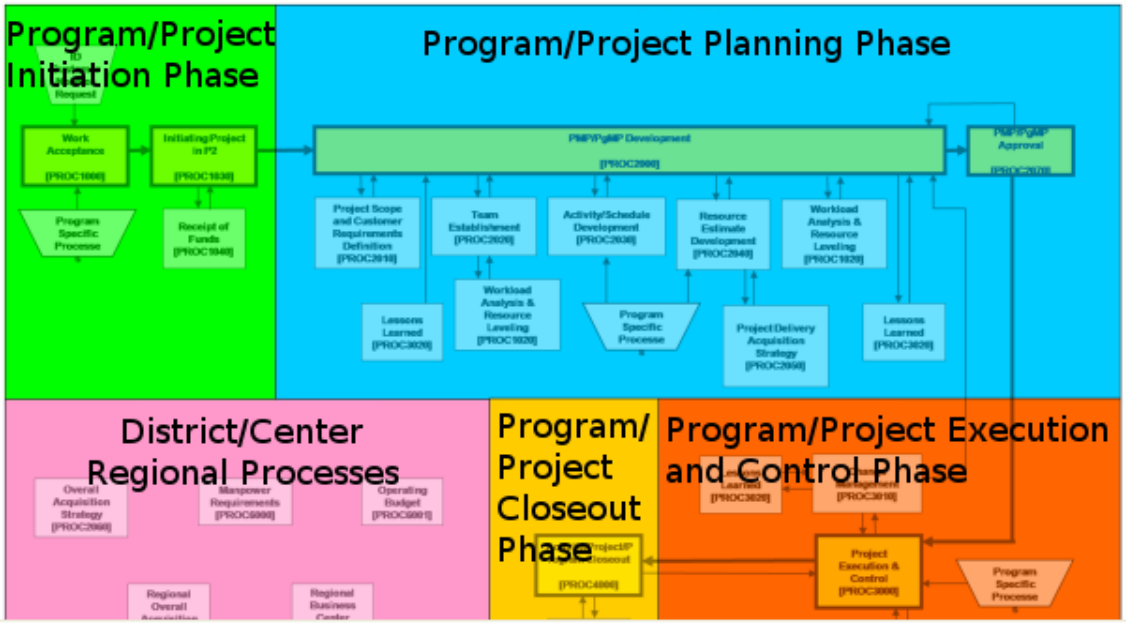
- Initiation Flowchart
- Planning Flowchart
- Non-Standard MILCON Project Execution Process
- Execution & Control - Projects with Standard Facilitities
  - Predesign
  - Design
  - Advertising/Award
  - Construction
- Closeout Flowchart

Specific Dispute Resolution/Waiver Processes:

- Waiver to Army Standard
- Waiver to Standard Design
- Waiver to Use of COS Contracts
- Advertising Over PA
- Cost Issue Resolution
- Awarding Over PA
- Reporting/Approval of Scope & Cost Variations (Authorization)
- Directives for MT Projects
- Reporting/Approval of Cost Increases (Reprogramming)

Purpose: This site provides processes that are used to execution Army MILCON projects. The processes are intended to define the roles and responsibilities of the entire team - to achieve successful program and project execution. The processes are built upon the guidance provided in AR 420-1 and rely on the PMBP concepts of teamwork and good communication.

How to Use this Site: The overall MT processes are described in flow charts for the various major phases of project execution (initiation, planning, execution (pre-design, design, advertising/award, construction), closeout). Green buttons link to more detailed dispute resolution or waiver processes.

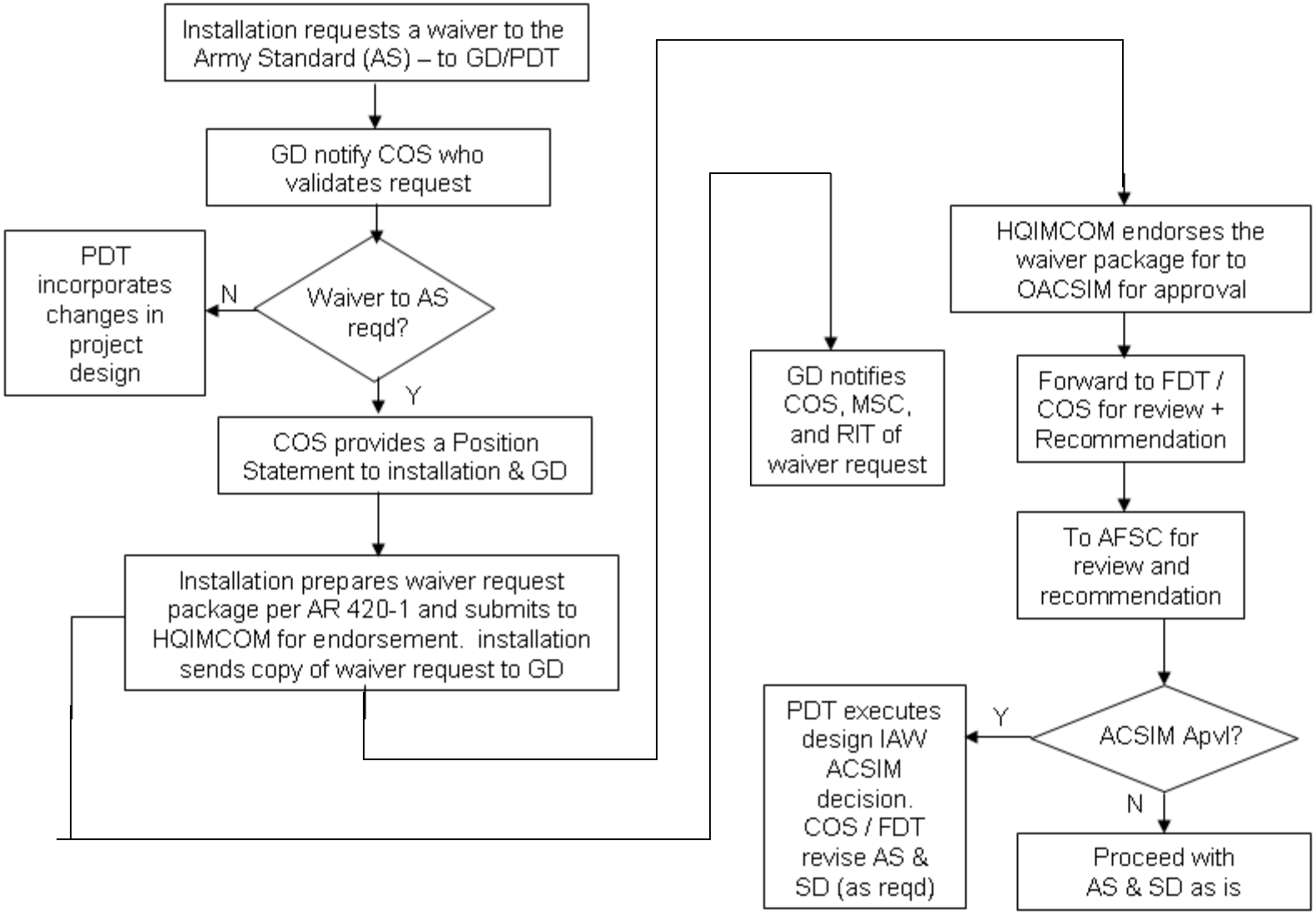


Trusted sites
100%

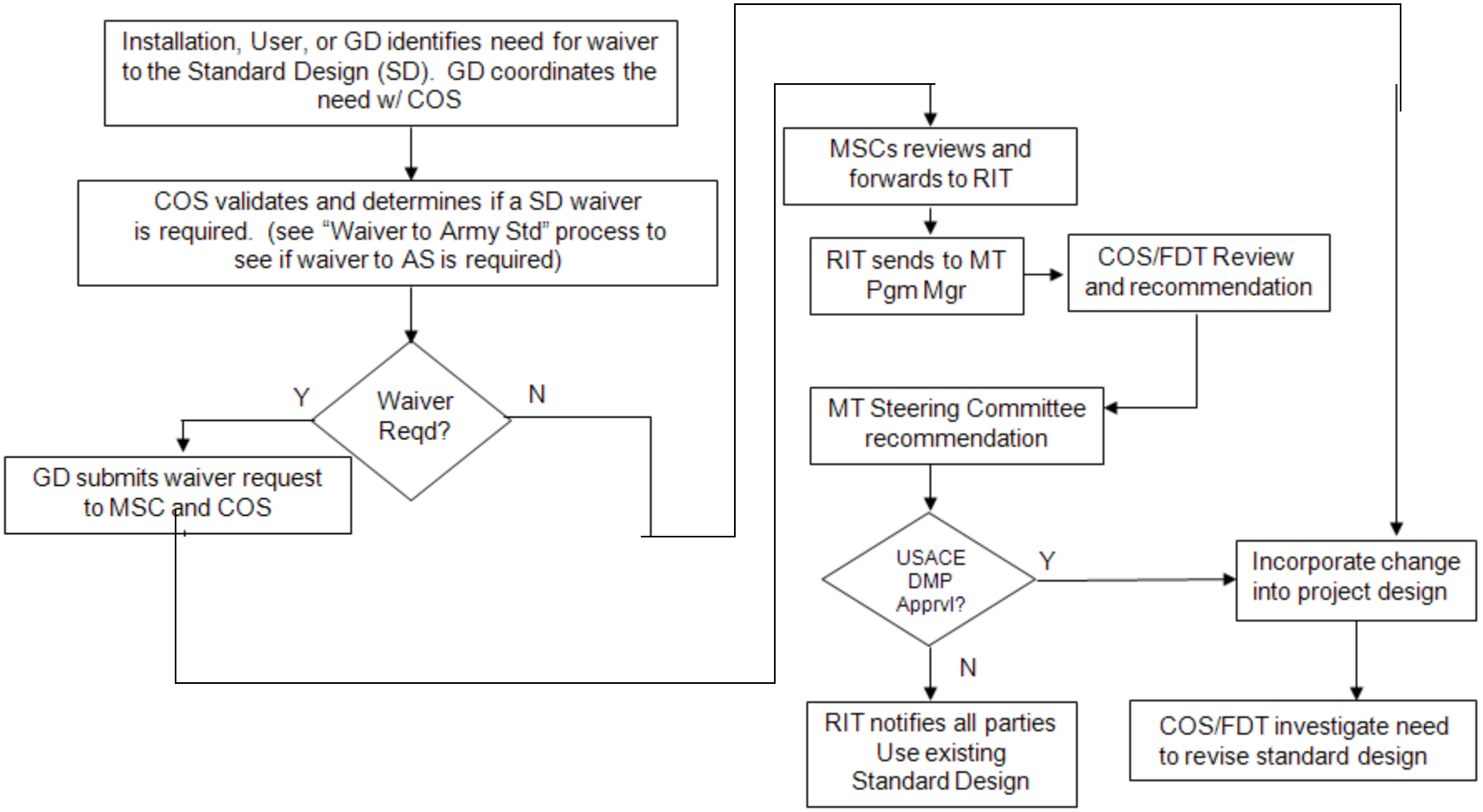
About waivers

- Three Levels
  - Changes to the Army Standard
  - Changes to the Standard Design
  - Changes to COS contracts

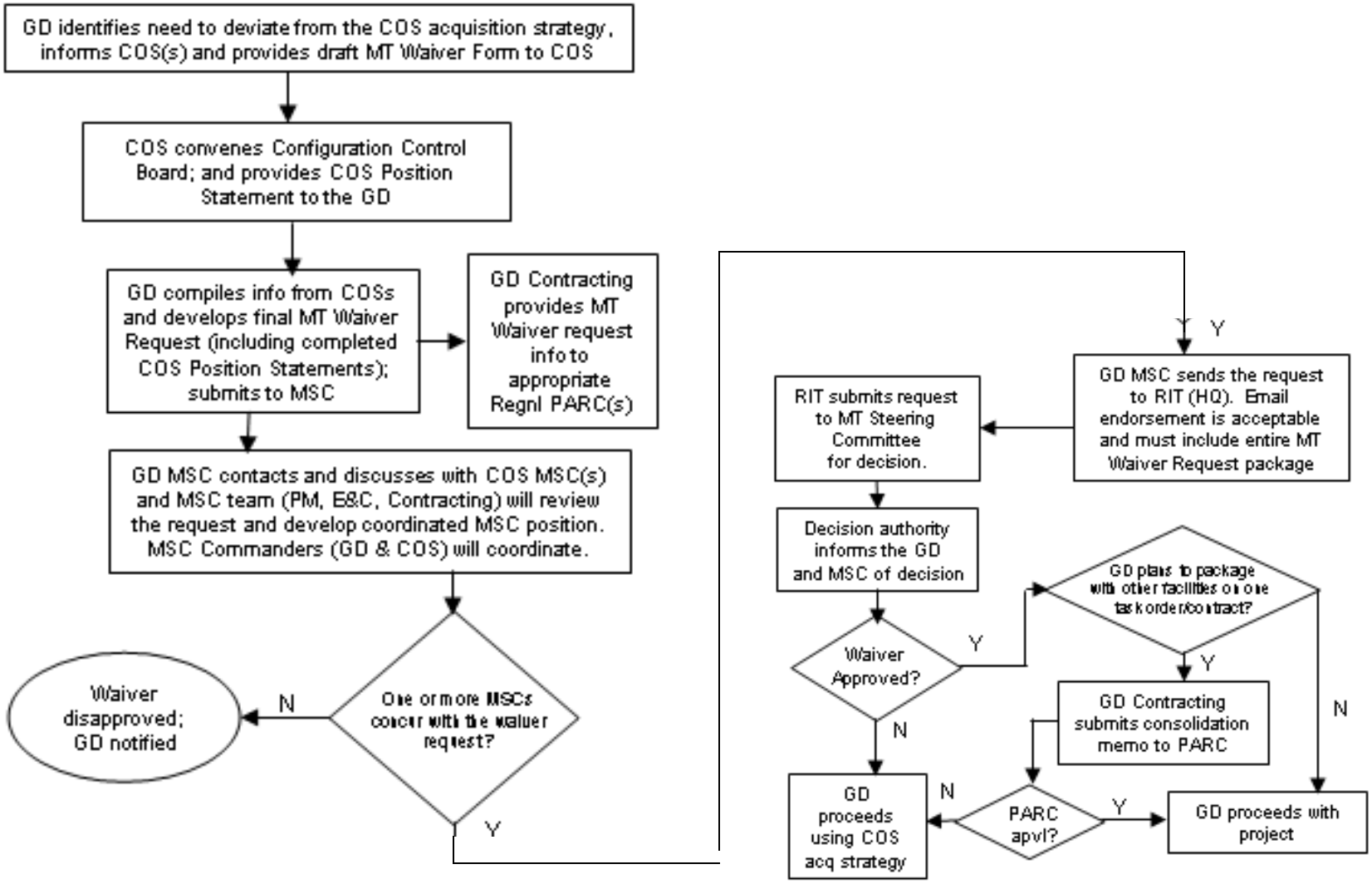
Waiver to the Army Standard


Installation requests a waiver to the Army Standard (AS) – to GD/PDT
GD notify COS who validates request
Waiver to AS reqd?
N
PDT incorporates changes in project design
Y
COS provides a Position Statement to installation & GD
Installation prepares waiver request package per AR 420-1 and submits to HQIMCOM for endorsement. installation sends copy of waiver request to GD
GD notifies COS, MSC, and RIT of waiver request
HQIMCOM endorses the waiver package for to OACSIM for approval
Forward to FDT / COS for review + Recommendation
To AFSC for review and recommendation
ACSIM Apvl?
Y
PDT executes design IAW ACSIM decision. COS / FDT revise AS & SD (as reqd)
N
Proceed with AS & SD as is

Waivers to the Army Standard Design


Installation, User, or GD identifies need for waiver to the Standard Design (SD). GD coordinates the need w/ COS
COS validates and determines if a SD waiver is required. (see "Waiver to Army Std" process to see if waiver to AS is required)
Waiver Reqd?
Y
N
GD submits waiver request to MSC and COS
MSCs reviews and forwards to RIT
RIT sends to MT Pgm Mgr
COS/FDT Review and recommendation
MT Steering Committee recommendation
USACE DMP Apprvl?
Y
N
Incorporate change into project design
RIT notifies all parties Use existing Standard Design
COS/FDT investigate need to revise standard design

Waivers to COS contracts

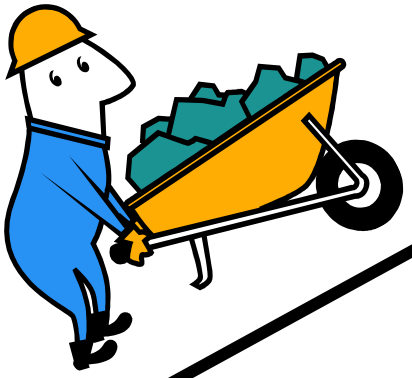

GD identifies need to deviate from the COS acquisition strategy, informs COS(s) and provides draft MT Waiver Form to COS
COS convenes Configuration Control Board; and provides COS Position Statement to the GD
GD compiles info from COSs and develops final MT Waiver Request (including completed COS Position Statements); submits to MSC
GD Contracting provides MT Waiver request info to appropriate Regnl PARC(s)
GD MSC contacts and discusses with COS MSC(s) and MSC team (PM, E&C, Contracting) will review the request and develop coordinated MSC position. MSC Commanders (GD & COS) will coordinate.
One or more MSCs concur with the waiver request?
N
Waiver disapproved; GD notified
Y
Y
GD MSC sends the request to RIT (HQ). Email endorsement is acceptable and must include entire MT Waiver Request package
RIT submits request to MT Steering Committee for decision.
Decision authority informs the GD and MSC of decision
Waiver Approved?
Y
GD plans to package with other facilities on one task order/contract?
Y
N
GD Contracting submits consolidation memo to PARC
GD proceeds using COS acq strategy
N
PARC apvl?
Y
GD proceeds with project

At the Program Level, A COS will…

- Develop/Maintain Army Standard & Standard Designs.
- Ensure consistent implementation & compliance with Army Standards & Standard Designs.
- Maintain BIM data, Lessons Learned, etc.
- Maintain the COS SOW portion of the model RFP during the transition years.
- Perform post-occupancy reviews of standard facilities.
- Continually improve the facility design to meet market conditions & best practices.

USACE – COS Transition

Three Phases



Phase 3: FY09-11 MILCON + (Adapt Build

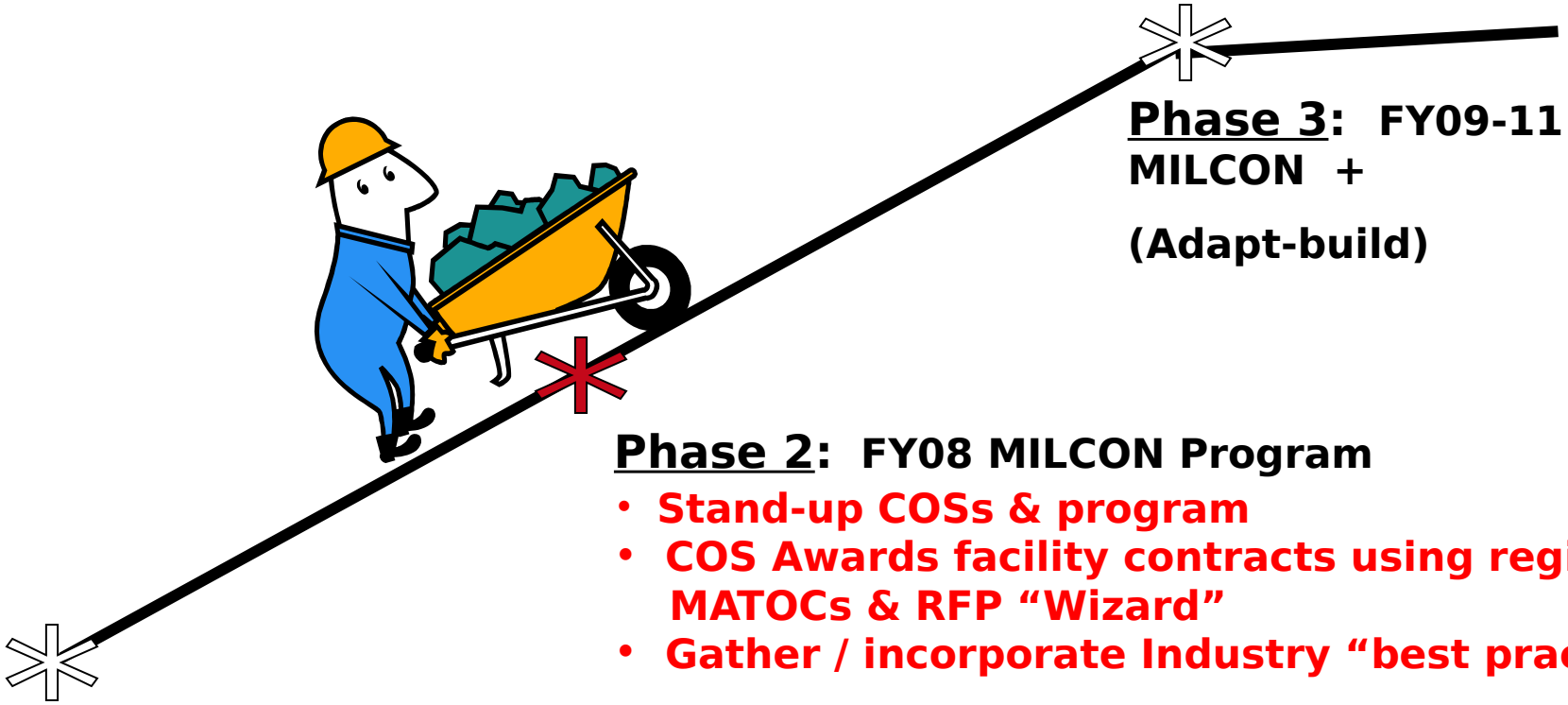
Phase 2: FY08 MILCON Program (Standardization Development)

Phase 1: FY06 + 07 MILCON Program (Information Gathering)

- **Invite Construction Industry feedback, pilot projects**
- **Identify & stand-up Centers of Standardization (COS)**
- **Geographic Districts award contracts using the USACE D-B Model RFP template.**
  - **Use industry standards, codes & processes**
  - **Contains non-prescriptive bubble diagrams, performance reqmt's of facility standards**

USACE – COS Transition

Three Phases



Phase 3: FY09-11 MILCON +

(Adapt-build)

Phase 2: FY08 MILCON Program

- **Stand-up COSs & program**
- **COS Awards facility contracts using regional MATOCs & RFP "Wizard"**
- **Gather / incorporate Industry "best practices"**

Phase 1: FY06 + 07 MILCON Program

- **Invite Construction Industry feedback, pilot projects**
- **Identify & stand-up Centers of Standardization (COS)**
- **Geographic Districts award contracts using the USACE D-B Model RFP template.**
  - **Uses industry standards, codes & processes**
  - **Contains non-prescriptive bubble diagrams, performance reqmt's of**

USACE – COS Transition

Three Phases

Phase 3: FY09-11 MILCON +

- **Fully develop COS adapt-build**
- **Move toward DBB contracts/task orders using standard designs**
- **Develop facility BIM models**

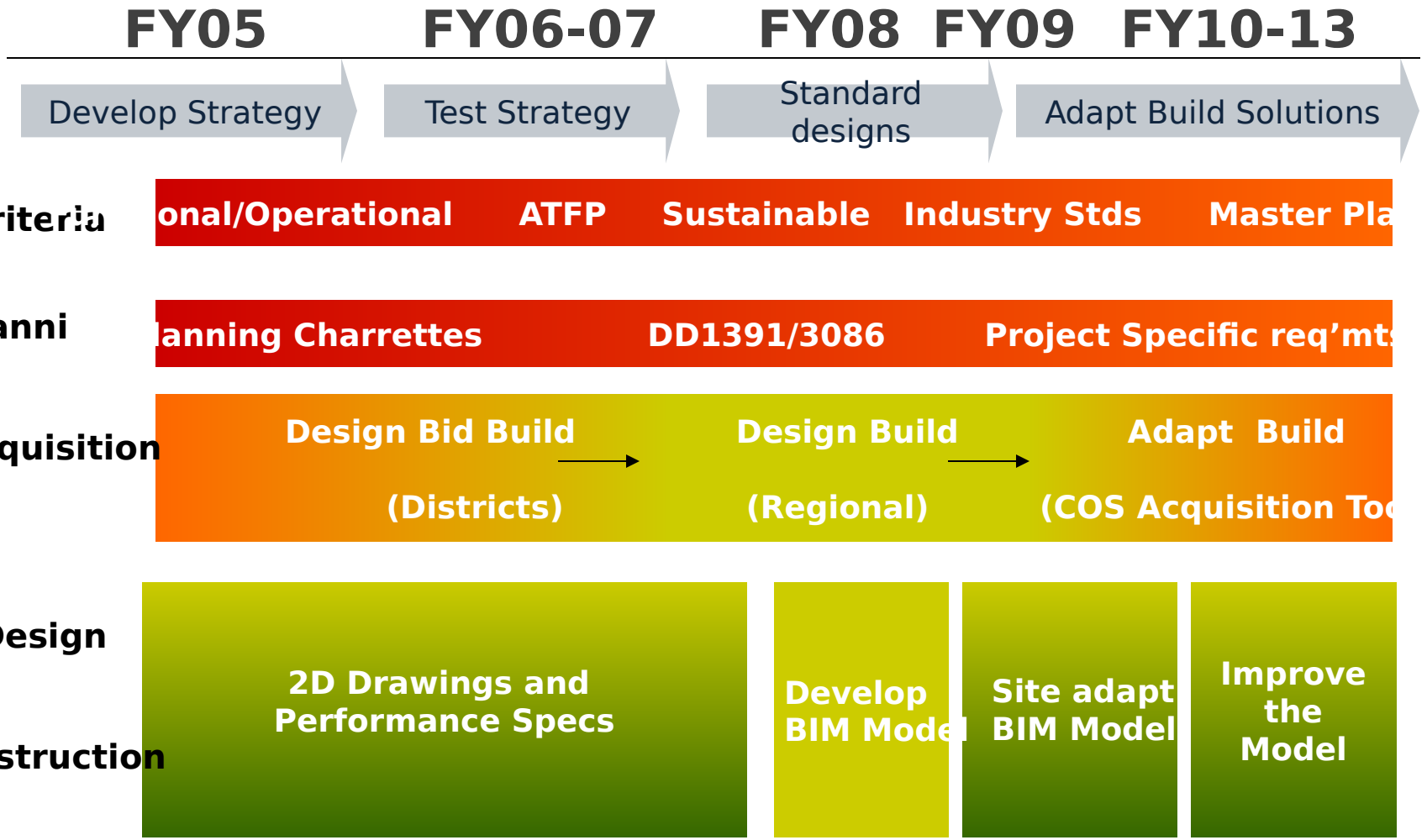
Phase 2: FY08 MILCON Program

- Stand-up COSs & program
- COS Awards facility contracts using regional MATOCs & RFP "Wizard"
- Gather / incorporate Industry "best practices"

Phase 1: FY06 + 07 MILCON Program

- Invite Construction Industry feedback, pilot projects
- Identify and begin Stand-up of facility Centers of Standardization (COS)
- Geographic Districts award contracts using the USACE D-B Model RFP template.
  - Use industry standards, codes and processes
  - Contains non-prescriptive bubble diagrams, performance reqmt's of

MBP Road Map


FY05
FY06-07
FY08
FY09
FY10-13
Develop Strategy
Test Strategy
Standard designs
Adapt Build Solutions
Criteria
onal/Operational
ATFP
Sustainable
Industry Stds
Master Pla
Planning
lanning Charrettes
DD1391/3086
Project Specific req'mts
Acquisition
Design Bid Build
(Districts)
Design Build
(Regional)
Adapt Build
(COS Acquisition Too
Design
Construction
2D Drawings and Performance Specs
Develop BIM Model
Site adapt BIM Model
Improve the Model

What is Adapt Build (A-B)?

- **Army Regulation 420-1, 4- 43**
- "Final (design) begins when a code T design directive and appropriate funding is issued by USACE. The project is authorized to proceed to 100 percent design using the adapt-build acquisition strategy that is an integral piece of the MILCON Transformation process.
- The adapt-build design concept will be used in conjunction with USACE's MILCON transformation strategy. It takes advantage of existing, approved, standard designs and adapts them for installation specific requirements, such as the Installation Design Guide. It also takes advantage of repetitive contracting and regional contracts.
- The USACE Center of Standardization (COS) will maintain a catalog of approved standard designs that will serve as the basis for the final design. The COS will insure that installation requirements are attached to each design. This includes mechanical systems, proper insulation, and exterior finishes."

Development of 100% site specific design through the use of a BIM model

Adapt Build Responsibilities

Responsible Partner **Task** * **(optional) = when defined in PMP agreement by the PDT**	**GD**	**COS**	**Partner District**	**A-E**	**MSC**
Complete & maintain A-B Model		**x**			
Maintain overall project PM responsibility	**x**				
Coordinate installation specific design features	**x**	**x*** **(optional)**	**x*** **(optional)**	**x*** **(optional)**	
Complete 100% D-B-B Code T Project	**x*** **(optional)**	**x*** **(optional)**	**x*** **(optional)**	**x*** **(optional)**	
Review final D-B-B for compliance to standard		**x**			
Review contract mods for compliance with		**x**			

Adapt Build (AB) - FY10 & FY11 Plan

- **AB Models by 12/09**: 24 facility types
- **FY10**, 9 std facilities coded “T” for AB.

  Remainder to use Design Build
- **AB Models by 12/10:** 27 facility types
- **FY11** most will be coded “T.”
  - 82% of the facility to use AB models. (82% =78 of 95).

ow do we accomplish Code T project

Viable alternatives

- COS alone
- Geographic District (GD)
- MSC support (NWD & NAD)
- A-E contract support

How do we pay for AB Code T?

- Answer: P&D funds

AB Summary

- Code “T”
- Based on a BIM model from COS
- 100% design adapted to location
- Designer as determined by COS
- Design paid by P&D $ from GD
- UFGS specs meeting MT principles
- Design Bid Build
- Repetitive contracting/regional contracts

COS Activities – End State

Project Execution

- Issue construction task orders for assigned facility.
- Coordinate LEED, aesthetics, etc.
- Coordinate waivers, answer RFI’s, approve mods, assist with claims, etc.
- Collect/evaluate Lessons Learned.

Maintain and Sustain the Standards.

- Maintain Army Standard Design & BIM models
- Life-Cycle Design Sustainment & Value Management
- Review 1391’s & 3086’s

The Geographic District

- Perform construction management of overall project
  - Contractor QA & payment
  - Coordinate any mods to a std facility with the COS.
  - Provide as-built BIM models to the COS.
  - Construction sequencing, special considerations
  - Project LEED documentation & coordination
  - Whole building commissioning coordination
  - After action reports, post occupancy evaluations
  - Feedback, feedback, feedback

Are you kidding???

- ✘ Field overhead costs up (CQC, safety officer, PM, PE, etc.)
- ✘ Coordination issues between contractors at boundaries
- ✘ Not enough room for all contractors – multiple staging areas
- ✘ Higher CD costs – pay estimates, coordination, records
- ✘ Multiple contracting officers and legal offices
- ✘ One project, multiple RMS, P2 issues
- ✘ Control of total project costs
- ✘ Coordinating schedules, NTP, BOD
- ✘ Environmental permitting nightmare

Is there confusion – you bet!!

But there’s lots of good!!

- ✔ Faster, more efficient construction
- ✔ Best practices generated for each contractor/lessons learned
- ✔ Lower cost/time to prepare and award contacts
- ✔ Shop drawing approvals, CQC plan, schedules, carry over
- ✔ Economies of scale
- ✔ Lower contractor home office overhead
- ✔ Lower P&D costs
- ✔ Costs become predictable, better planning and programming

The Bottom Line

Be Flexible and Supportive

4a

USACE & INSTALLATIONS A PARTNERSHIP FOR SUCCESS

What does this mean for Installations?

- **“Emphasis is on Army criteria & performance standards”; not Installation standards.**
- **Changes should be limited & “will” require waiver.**
- **Template 1391s for standard facilities will help installations.**
- **Work with Districts on project scoping, expected costs & coordination issues.**

The Installation - Planning

- Ensure project planning complies with the Army Standards and Standard Designs and template 1391 (when a

Choose sites carefully.

The Installation - Design

- Work with USACE, in the development of designs that comply with the installation visual theme & available project funds.
- Do not use standard designs in ACTS & PROJNET. They are not current.

The Installation – Design/Award

- **Review the WIZARD-based RFP package**

- **Installation Design Guides**
  - **Insure your Installation Design Guide is approved by IMCOM/ACSIM**
  - **IDG cannot be overly prescriptive & drive up costs**
  - **COS/GD can include installation preferences in RFP *IF* cost will accommodate them**

- **Participate in the proposal evaluation process**

The Installation - Construction

- **Assist the project construction team:**
  - **LEED validation**
  - **Project/building commissioning**
  - **Furniture installation coordination**

  This may involve multiple facilities & contractors within the project including site/utilities.

The Installation – Post Occupancy

Provide feedback to the C

- **Identify improvements enhancements that enab the facility to be more functional & operational**

COS & GEOGRAPHIC DISTRICTS

WORKING TOGETHER

Roles and Responsibilities

Geographic District (GD)

- Is the PM for the project & the USACE interface with the installation
- Leads the charrette
- Executes the project site design & construction contract
- Integrates Building-site design & construction contract oversight

Center of Standardization (COS)

- Develop & maintain standard facility designs/criteria
- Enforce the Army standards during planning, design, construction
- Award facility construction contracts
- Technical resource during project construction activities
- Capture mods, lessons-learned, & revise/improve model designs
- Use BIM

Roles and Responsibilities
Code 0 - Planning Charrette

- GD:
  - All PM duties
  - Notify
  - Lead Charrette
  - Coordinate schedule with COS
  - Fund any COS efforts
- COS:
  - Participate and ensure correct standard implementation
  - Review customer preferences in 1391
  - Consult on waiver requests
  - Obtain feedback for template 1391

Roles and Responsibilities
Code 1 – Pre-design

GD:

- All PM duties
- Notify COS
- Preliminary site info to COS
- Identify budgets, fund any COS efforts
- Coordinate acquisition strategy for site and non-COS facilities

COS:

- Coordinate acquisition strategy for task order award

Roles and Responsibilities
Code 2/3 - Concept/Parametric

GD

- Same as Code 1 plus:
- Manage project schedule and cost
- Design Charrette
- Provide utility info to COS
- NEPA/Demo/HTRW
- Preliminary site design
- Geotech investigation
- Overall coordination
- Ensure waivers obtained
- Prepare project definition report (PDR) & upon approval develop/submit 3086

COS

- Facility design PDT member
- Attend charrette
- Input into site considerations
- Identify Aesthetic / theme & coordinate among project COS's
- Provide Preliminary facility cost to GD
- Foundation loading
- Waiver consultant
- Contribute & concur with scope in parametric design report

Code 3

- **NLT 1 Nov** The GD will complete & submit the Project Definition Report (PDR) to HNC CX. Scope, and other cost related issues, shall be resolved & validated with the COS (use scope discrepancy notification form if needed)
- **NLT 2 weeks of submission**, HNC will review
- **NLT 15 Jan** After PDR approval by HNC, the GD will complete the 3086 cost estimate & submit to the HNC CX for review & approval.

Roles and Responsibilities Code 4/5/8 - Project Hold/Defer/Cancel

GD:

- Notify COS
- Coordinate further strategies

COS:

- Return unused funds

Roles and Responsibilities
Code 6/7/T – Design

GD:

- Same as above plus:
- Complete site design
- Complete non-COS design(s)
- Coordinate utility designs
- Coordinate Boiler Plate/Division 1
- BCOE
- Coordinate total project scope issues
- Coordinate aesthetics between COS facilities

COS:

- Complete facility task order prep - RTA
- Provide facility cost data to geographic district
- Review site/other COS packages for consistency
- Waiver/scope consultant
- Coordinate furniture
- Coordinate facility scope issues
- Maintain integrity of the standard

Roles and Responsibilities Code 9 – Award Construction Contract

GD

- Award site & some task order contracts
- Coordinate schedules for COS NTP
- Provide S&A, EDC
- Manage BIM As-builts
- Coordinate all facility changes thru COS
- Coordinate permits
- Copy COS with final as-builts
- All construction management

COS:

- Award facility task orders/ const. contracts
- Attend pre-construction
- Coordinate with/track modifications
- Coordinate on user requested changes
- Answer RFIs, assist with claims, etc.
- Review design submittals for conformance to Army Standards/Standard Design
- Collect lessons learned

Remember

- The establishment and operation of the COS is a major paradigm shift for all of us.
- HQ, the COS Management Board, and MSCs are working some issues.
- Exercise patience
- We’re all in this for the good of the Army

5a

COS STANDARD OPERATING PROCEDURES (SOPs)

- For more info, visit the COS website https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx

Home - Windows Internet Explorer
https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx
Live Search
Home
Page
Tools

US Army Corps of Engineers

Welcome to the USACE Centers of Standardization (COS) website

This website is used by the COS to disseminate all the necessary information related to Military Construction Transformation (MT) process and standard design development. On this site you will find:

- Points of Contact to all the COS and USACE Headquarters
- All the necessary information pertaining to each standard facility type developed to date:
  - Army Standards
  - Army Standard Designs
  - Adapt-Build Model information
  - 1391 Templates
- All pertinent COS policy and procedural documents
- Important website links to other pertinent COS and MT information
  - Some links may be Army/USACE Intranet websites with Common Access Card (CAC) access only

Facility Type Links

Access Control Point (ACP)
Advanced Individual Training Complex
Aircraft Maintenance Hanger (HRG) Complex
Army Community Service Center (ACSC)
Basic Training and One Station Unit Training Complex
Battalion/Brigade Headquarters (BN/BDE HQ)
Battle Command Training Center (BCTC)
Command & Control Facilities (C2F) - Division & Corps Headquarters
Company Operations Facility
Consolidated Fire, Safety and Security Facility (CFS)
Criminal Investigation Facility
Drill Sergeant Barracks
Enlisted Personnel Dining Facility
Fire Station (FS)
Museums
Operational Readiness Training Complex
Outdoor Sports Facilities (OSF)
Physical Fitness Facility (PFF)
Reception Barracks
Religious Facilities
Soldier Family Support Center (SFSC)

Important Links

- RFP Wizard
- AR 420-01 - Army Facilities Management
- COS Regional Contract Listing (Intranet)
- Value Engineering Library (Intranet)
- MT Execution Process Maps (Intranet)
- 2008 USACE OPORDS - FRAGORDS (Intranet)
- 2009 USACE OPORDS - FRAGORDS (Intranet)
- COS SharPoint Website (Intranet)
- Sustainable Design and Development (EK

COS Process Documents

Type | Name | Modified By | Catego

- **Category : Charter** (2)
- **Category : Memos** (6)
- **Category : PGMP** (1)
- **Category : SOPs** (7)

Local intranet
100%

COS SOPs

- SOP 1 & 2: P&D funds – how much funds to send to the COS & how will it flow between the GD & COS
- SOP 3: Role of the GD
- SOP 4: Role of the COS
- SOP 5: Source selection & proposal evaluation
- SOP 6: OACSIM, HQIMCOM, HQUSACE, MSC roles & responsibilities
- SOP 7: Integration management
- SOP 8: Standard Design management
- SOP 9: BCOE
- SOP 10: LEED
- SOP 11: Construction Contract Modifications

SOP 1 COS Fee Schedule

The GD will:

- coordinate with the COS when project directive is received
- provide project specific information
- furnish P&D funds to the COS

COS does RFP Adv Eval & Awd “C” = $170K

COS does RFP Adv Eval & Awd “TO” = $140K

COS does RFP; GD Adv Eval & Awd = $85K

COS review GD RFP Adv Eval & Awd = $55K

SOP 2 Funds Transfer to the COS

The GD will:

- MIPR $ for labor to the COS (cross charging may be an option if coordinated with COS)
- MIPR $ for S&A activities (cross charging may be an option if coordinated with COS)
- MIPR travel funds to the COS

SOP 3 Roles of The Geographic District

The GD will:

- Be the PM for the project
- Notify & coordinate with the COS
- Lead & invite the COS to charrettes
- Provide project information to the COS
- Prepare total project IGE
- Coordinate construction issues with COS
- Send As-builts to COS

SOP 4 Roles of the COS

The COS will:

- Support the GD as a PDT member
- Award task orders for the building
- Advise/coordinate waivers
- Prepare cost estimates for facilities
- Coordinate construction issues
- Attend const/post occupancy evaluations
- Maintain BIM, Lessons learned

SOP 5 Off–site Review for Source Selection

The COS will:

- When necessary, SSEB evaluations off site
- KO will appoint a remote POC responsible for the document coordination, transfer & security
- KO will conduct training. Board mbrs will sign Certification of Procurement Integrity
- Remote evaluator will complete evaluation
- Remote POC will collect documents

SOP 6 OACSIM, IMCOM, USACE Roles

- OASCIM will assist COS with facility standards & criteria
- IMCOM will synchronize programmatic & installation support to the COS
- USACE will provide Command oversight of the COS

SOP 7 Integration Management

- Coordination of infrastructure, site, construction phasing & sequencing, exterior visual theme & LEED
- Assigned complexes (BT, AIT, ORTC): Lead COS is the integrator
- Complexes with several facility types: GD or COS is the integrator

SOP 8 Standard Design Management

- COS will develop Army STANDARDS & CRITERIA, maintained through BIM technology, reflecting the adaptability to meet regional adjustments for architectural & engineering features for each region.
- COS with GD support will ensure completed DESIGNS are based on regionalized Army standards & criteria that will meet market conditions, installation local conditions & appearance criteria.

SOP 9 BCOE Review Related to COS

- Chief of PPM at GD will (via their PMs) ensure adequate time & funding to do BCOE reviews
- Chief of E&C at GD will ensure BCOE of site design & facility is completed
- Chief of E&C at COS will ensure BCOE of facility & input from GD on the site is accomplished
- Chief of Contracting who awards the contract will not open bids nor accept proposals prior to above BCOE certification
- Div & District Commanders will ensure effective & timely BCOE reviews

SOP 10 LEED

- Site work & bldg by separate contractors
  (LEED score involves both site and bldg)
- GD is responsible for achieving minimum goal and documentation/reporting
- GD & COS complete LEED strategy table
- Substitution permitted except combined points
- LEED strategy table lets each contractor know what they must meet
- GD compiles contractor documentation

SOP 11 Modifications

- All proposed changes related to the facility standard design will be recorded in RMS as a Basic Change Document (BCD) & sent to the COS Tech POC.
- ASAP within 5 working days, COS Tech POC will provide verification that the change request meets the standard.
- No change will be finalized without a documented verification from the COS

5.b

POST CONSTRUCTION AWARD ACTIVITIES

Post Award
Roles / Responsibilities

- **Resident Engineer Staff** ensures contract requirements are met.
- **Technical Reviewers** ensure design documents comply with the contract.
- **D/B Contractor** provides a facility that meet the performance requirements of the contract.
- **Designer of Record (DOR)** prepares design documents that meet the requirements of the contract.
- **COS** reviews submittals for conformance to Army Standard/Standard Design

Design Packaging

- **The D/B Contractor decides on the number & content of the design submittals**
- **The D/B Contractor has the right to modify the design packages & timelines for submission.**
- **RE to notify all reviewers of the anticipated submittals & review conference dates.**

Review Options

- **Interim Design Review**
  - **14 calendar days**
  - **May agree on shorter period for smaller design packages**
- **Final Design Review**
  - **7 calendar days**
  - **May agree on shorter period for smaller design packages**
- **Over the Shoulder Review**
  - **Not required by the Contract**
  - **Government & Contractor may agree**

Types of Comments

- **Design Review Comments when the design product does not comply with the contract or code.**
  - **DOR is responsible for the technical adequacy of the design.**
  - **Comments are to be clear (not in the form of a question).**
  - **Comments on compliance with current building codes.**
- **NOT Acceptable Comments:**
  - **Designer Preference or Change Design**
  - **Scope Additions**
  - **Comments which conflict with or require things not in the contract.**
- **Use Dr Checks.**

Design Level of Detail

- **D-B products produced by the DOR will not be the same level of detail as D-B-B projects.**
  - **Drawings will be developed to level necessary to enable construction.**
  - **Drawings and specifications may list:**
    - **Manufacturers Names**
    - **Model numbers**
    - **Vendor specific shop drawings/info.**

Release For Construction

- **Drawings & specs demonstrate that the Contractor can construct a facility that will meet the requirements of the contract.**
  - **RE has the responsibility to allow the construction processes to commence.**
  - **RE releases design packages for construction when the Government accepts the final design for that package.**
  - **RE may provide multiple releases for construction on various design packages as they are completed.**

6
MBP TOOLS

6a
1391 templat

DD1391 Module - Fort Huntsville - Windows Internet Explorer

File Edit Actions Tools Help

Select the DD1391 Quickstart Icon to either create a new standard design facility(ies) or replace cost/verbiage in an existing DD1391 Form with standard design data.

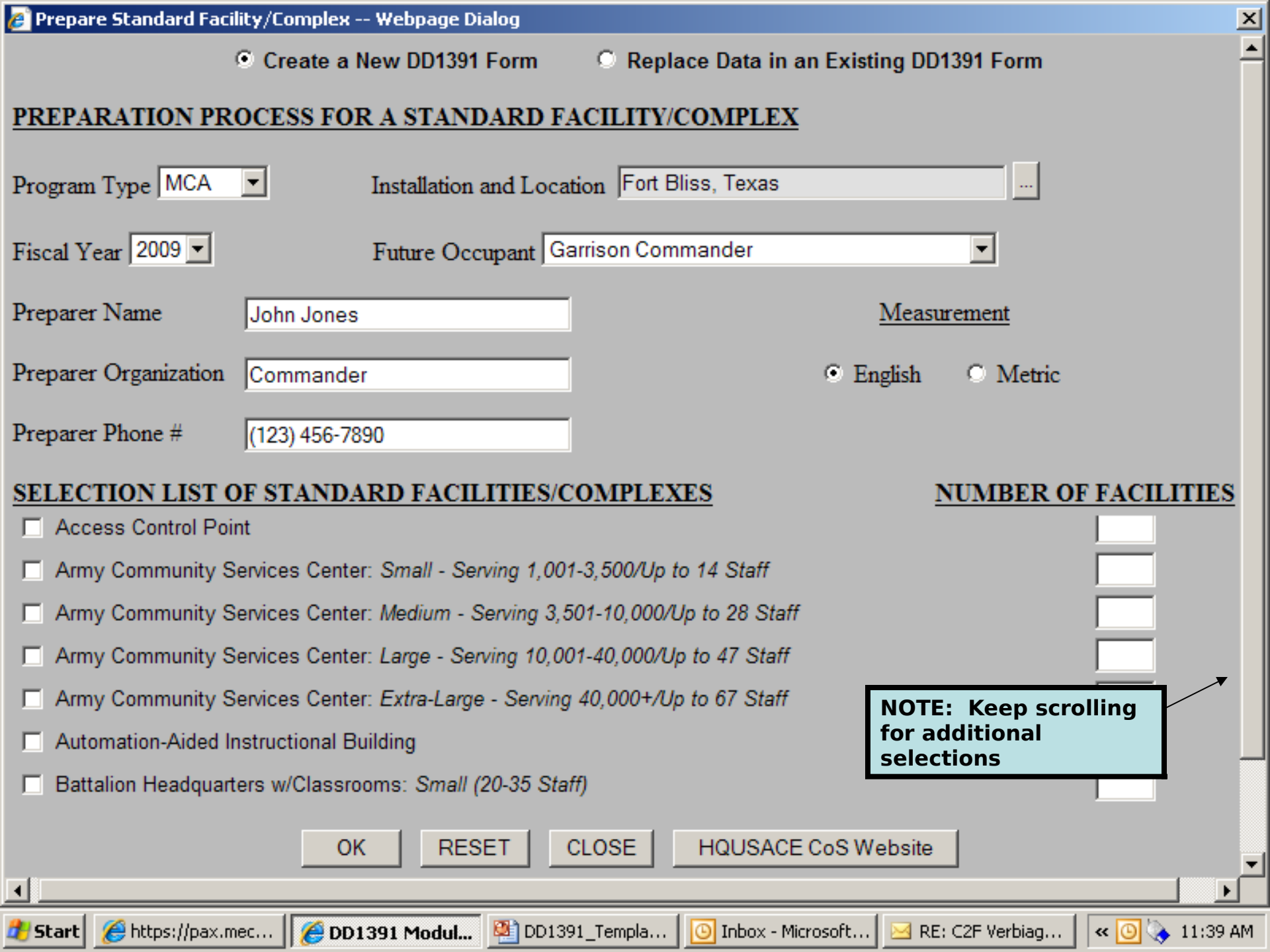
WELCOME TO THE ARMY'S DD FORM 1391 PROCESSOR SYSTEM DD1391 MODULE!

LATEST SYSTEM INFORMATION (Revised: 06/19/2008)

DD1391 Processor System Helpdesk (256) 895-1838
PAXSPT-Huntsville@usace.army.mil DSN: 760-1838

Web1391 System | Trusted sites | 100%

Start | PAXSPT-Huntsville - In... | https://pax.mech.disa... | DD1391 Module - F... | DD1391_Templates_M... | 11:59 AM


Prepare Standard Facility/Complex -- Webpage Dialog
Create a New DD1391 Form
Replace Data in an Existing DD1391 Form
PREPARATION PROCESS FOR A STANDARD FACILITY/COMPLEX
Program Type
MCA
Installation and Location
Fort Bliss, Texas
Fiscal Year
2009
Future Occupant
Garrison Commander
Preparer Name
John Jones
Measurement
Preparer Organization
Commander
English
Metric
Preparer Phone #
(123) 456-7890
SELECTION LIST OF STANDARD FACILITIES/COMPLEXES
NUMBER OF FACILITIES
Access Control Point
Army Community Services Center: Small - Serving 1,001-3,500/Up to 14 Staff
Army Community Services Center: Medium - Serving 3,501-10,000/Up to 28 Staff
Army Community Services Center: Large - Serving 10,001-40,000/Up to 47 Staff
Army Community Services Center: Extra-Large - Serving 40,000+/Up to 67 Staff
Automation-Aided Instructional Building
Battalion Headquarters w/Classrooms: Small (20-35 Staff)
NOTE: Keep scrolling for additional selections
OK
RESET
CLOSE
HQUSACE CoS Website
Start
https://pax.mec...
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Inbox - Microsoft...
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Prepare Standard Facility/Complex -- Webpage Dialog

(•) Create a New DD1391 Form ( ) Replace Data in an Existing DD1391 Form

PREPARATION PROCESS FOR A STANDARD FACILITY/COMPLEX

Program Type: MCA

Installation and Location: Fort Bliss, Texas ...

Fiscal Year: 2009

Future Occupant: Garrison Commander

Preparer Name: John Jones

Preparer Organization: Commander

Preparer Phone #: (123) 456-7890

Measurement

(•) English ( ) Metric

SELECTION LIST OF STANDARD FACILITIES/COMPLEXES

NUMBER OF FACILITIES

- [ ] Child Development Center (Ages 0-5): *Large - Supports 233-338 Children*
- [ ] CIDC Field Operations Bldg: *Small (5-8 Resident Agents)*
- [ ] CIDC Field Operations Bldg: *Medium (9-12 Resident Agents)*
- [ ] CIDC Field Operations Bldg: *Large (District Office)*
- [ ] Command & Control Facility (C2F) - Division & Corps Headquarters
- [ ] Company Operations Facility - Number of Companies
  Readiness Module - Number of Persons per Company

NOTE: Click here to go to the Center of Standardization Website at HQUSACE

OK RESET CLOSE HQUSACE CoS Website

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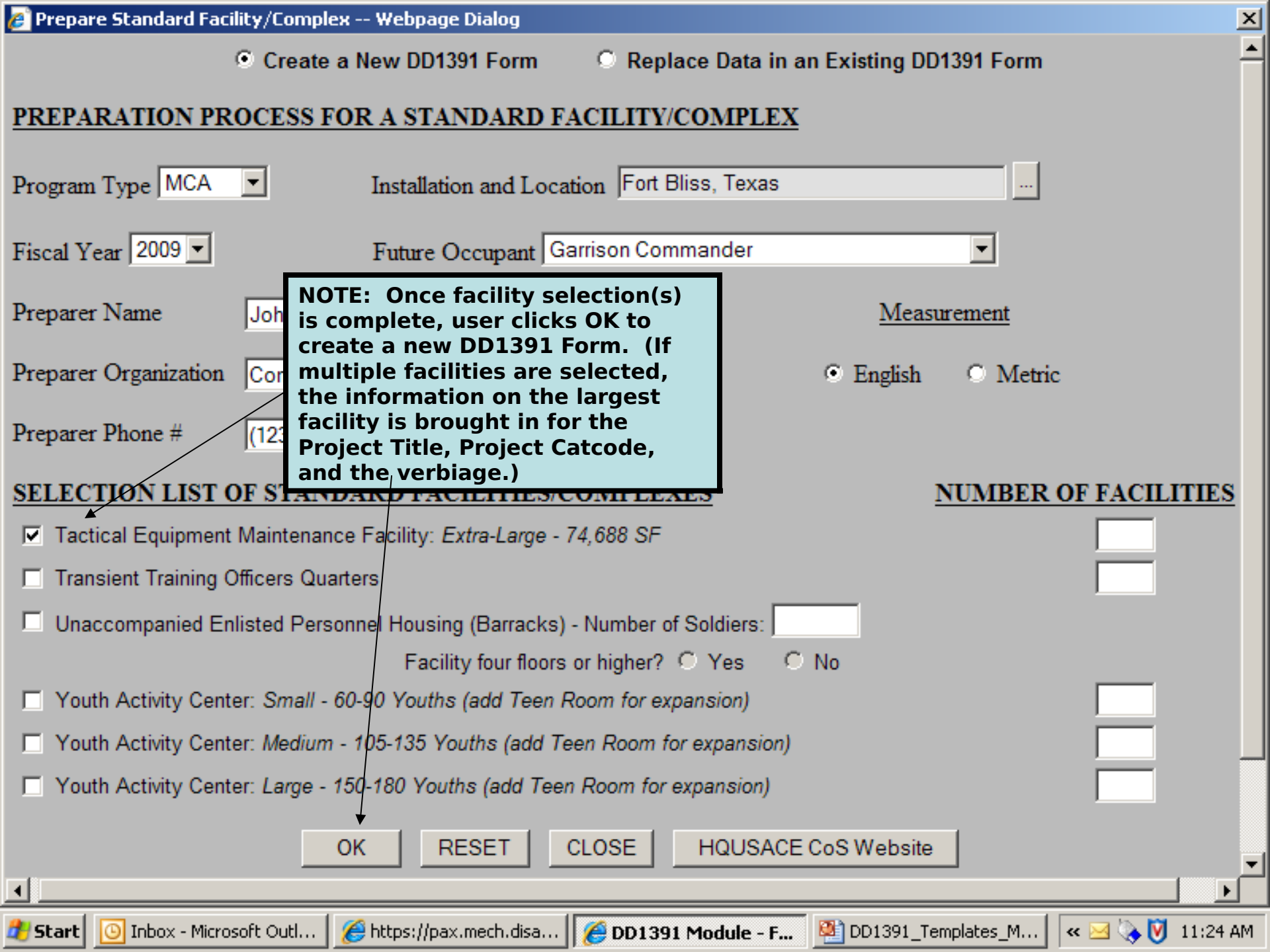
Prepare Standard Facility/Complex -- Webpage Dialog
Create a New DD1391 Form
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Fort Bliss, Texas
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2009
Future Occupant
Garrison Commander
Preparer Name
Preparer Organization
Preparer Phone #
Measurement
English
Metric
NOTE: Once facility selection(s) is complete, user clicks OK to create a new DD1391 Form. (If multiple facilities are selected, the information on the largest facility is brought in for the Project Title, Project Catcode, and the verbiage.)
SELECTION LIST OF STANDARD FACILITIES/COMPLEXES
NUMBER OF FACILITIES
Tactical Equipment Maintenance Facility: Extra-Large - 74,688 SF
Transient Training Officers Quarters
Unaccompanied Enlisted Personnel Housing (Barracks) - Number of Soldiers:
Facility four floors or higher? Yes No
Youth Activity Center: Small - 60-90 Youths (add Teen Room for expansion)
Youth Activity Center: Medium - 105-135 Youths (add Teen Room for expansion)
Youth Activity Center: Large - 150-180 Youths (add Teen Room for expansion)
OK
RESET
CLOSE
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DD1391 Module - Fort Huntsville - 73114 - 73114 - Windows Internet Explorer

File Edit Actions Tools Help

A DD1391 Form | H Disp/Demo Data | I RPMA Data | J Regulatory Data | Congressional Add Data Sheet | Attachments

B Planning & Design | C Misc Support Data | D Economic Analysis | E Furnishings & Eqt | F Information Sys | G AT Protection

ATTACHMENTS

Add Attachment | Delete Attachment

Delete

Size: 463 KB

Title: Standard Design information fo

POC Name: SAS Center of Standard

POC Office:

POC Phone:

POC Email:

Date: 08/11/2008

NOTE: During the DD1391 form preparation process, cost, verbiage, preparer's notes, furnishings & equipment data, and specific files are loaded into the new form. By clicking the PDF Icon, the user may see the attached floor plan.

Supporting Documents | Trusted sites | 100%

Start | PAXSPT-Huntsville - I... | https://pax.mech.dis... | DD1391 Module - F... | Microsoft PowerPoint ... | 11:34 AM

https://pax.mech.disa.mil/~1391WEB/IMAGES/A0007212.PDF - Windows Internet Explorer

1 / 2

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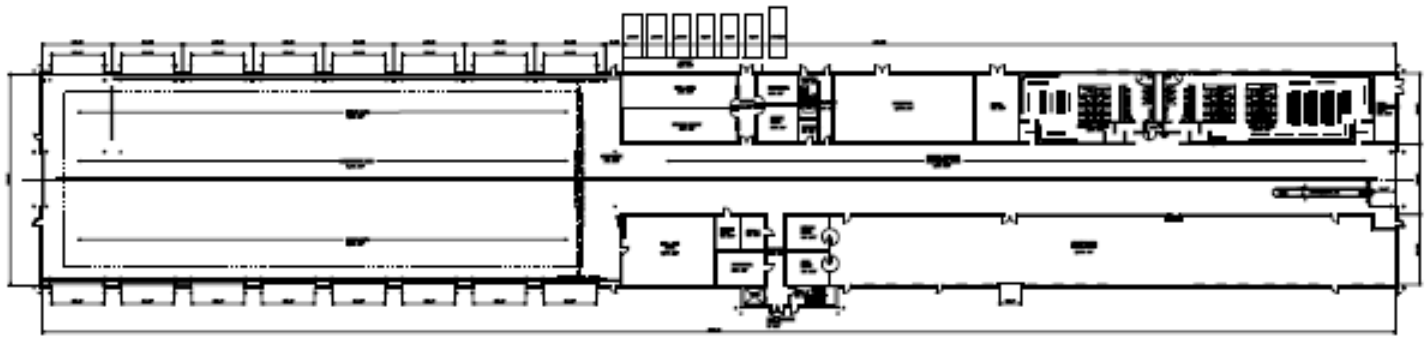
Find



LOWER LEVEL FLOOR PLAN

LOWER LEVEL FLOOR PLAN

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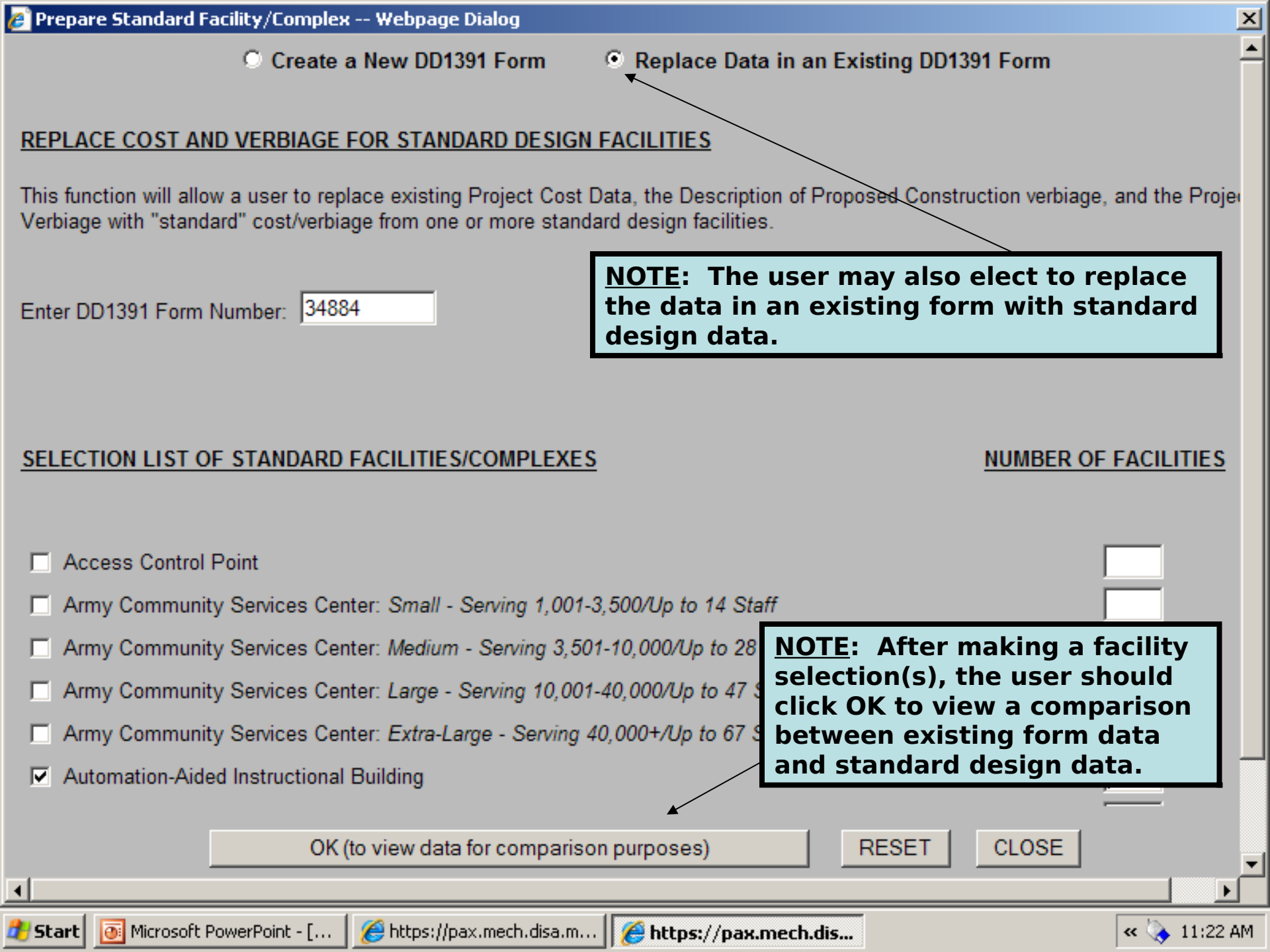
Prepare Standard Facility/Complex -- Webpage Dialog
Create a New DD1391 Form
Replace Data in an Existing DD1391 Form
REPLACE COST AND VERBIAGE FOR STANDARD DESIGN FACILITIES
This function will allow a user to replace existing Project Cost Data, the Description of Proposed Construction verbiage, and the Proje
Verbiage with "standard" cost/verbiage from one or more standard design facilities.
Enter DD1391 Form Number: 34884
NOTE: The user may also elect to replace the data in an existing form with standard design data.
SELECTION LIST OF STANDARD FACILITIES/COMPLEXES
NUMBER OF FACILITIES
Access Control Point
Army Community Services Center: Small - Serving 1,001-3,500/Up to 14 Staff
Army Community Services Center: Medium - Serving 3,501-10,000/Up to 28
Army Community Services Center: Large - Serving 10,001-40,000/Up to 47
Army Community Services Center: Extra-Large - Serving 40,000+/Up to 67
Automation-Aided Instructional Building
NOTE: After making a facility selection(s), the user should click OK to view a comparison between existing form data and standard design data.
OK (to view data for comparison purposes)
RESET
CLOSE
Start
Microsoft PowerPoint - [...
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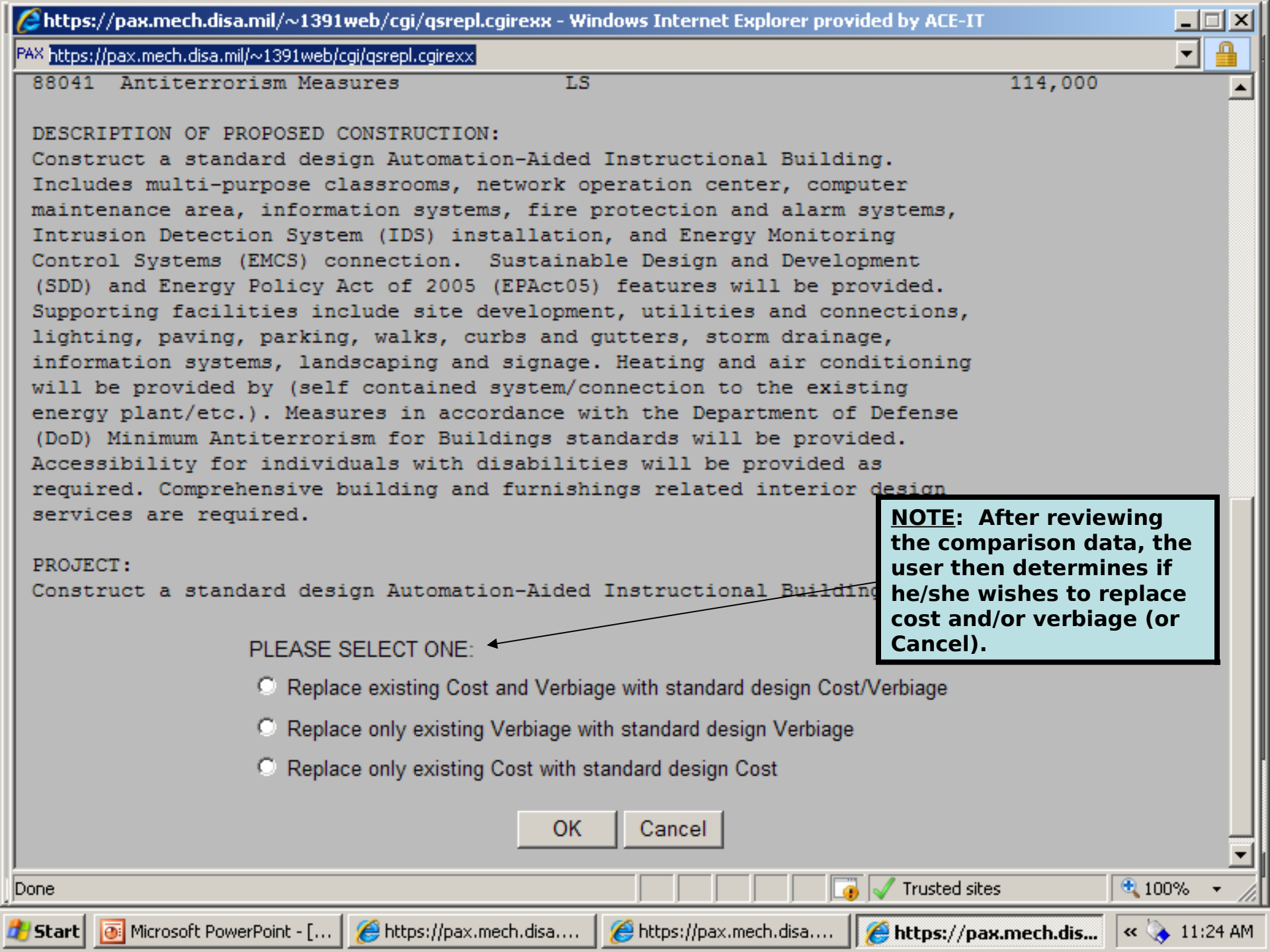

https://pax.mech.disa.mil/~1391web/cgi/qsrepl.cgirexx - Windows Internet Explorer provided by ACE-IT
https://pax.mech.disa.mil/~1391web/cgi/qsrepl.cgirexx
88041 Antiterrorism Measures LS 114,000
DESCRIPTION OF PROPOSED CONSTRUCTION:
Construct a standard design Automation-Aided Instructional Building.
Includes multi-purpose classrooms, network operation center, computer
maintenance area, information systems, fire protection and alarm systems,
Intrusion Detection System (IDS) installation, and Energy Monitoring
Control Systems (EMCS) connection. Sustainable Design and Development
(SDD) and Energy Policy Act of 2005 (EPAct05) features will be provided.
Supporting facilities include site development, utilities and connections,
lighting, paving, parking, walks, curbs and gutters, storm drainage,
information systems, landscaping and signage. Heating and air conditioning
will be provided by (self contained system/connection to the existing
energy plant/etc.). Measures in accordance with the Department of Defense
(DoD) Minimum Antiterrorism for Buildings standards will be provided.
Accessibility for individuals with disabilities will be provided as
required. Comprehensive building and furnishings related interior design
services are required.
PROJECT:
Construct a standard design Automation-Aided Instructional Building
NOTE: After reviewing the comparison data, the user then determines if he/she wishes to replace cost and/or verbiage (or Cancel).
PLEASE SELECT ONE:
Replace existing Cost and Verbiage with standard design Cost/Verbiage
Replace only existing Verbiage with standard design Verbiage
Replace only existing Cost with standard design Cost
OK
Cancel
Done
Trusted sites
100%
Start
Microsoft PowerPoint - [...
https://pax.mech.disa....
https://pax.mech.disa....
https://pax.mech.dis...
11:24 AM

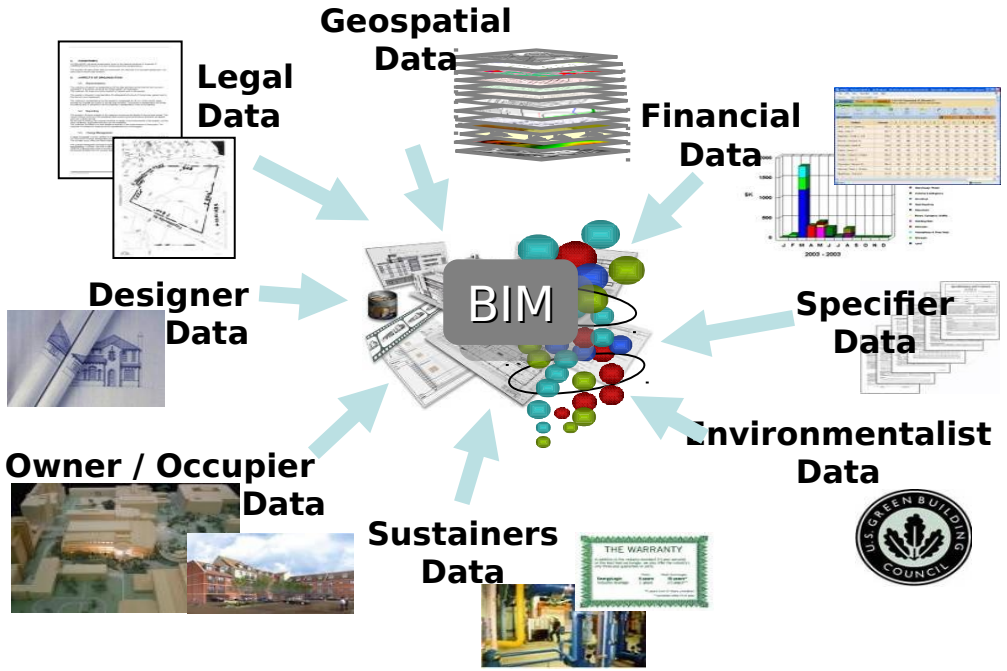
6b
BIM

BUILDING INFORMATION MODELING (BIM)

BIM - What is it and why use it?

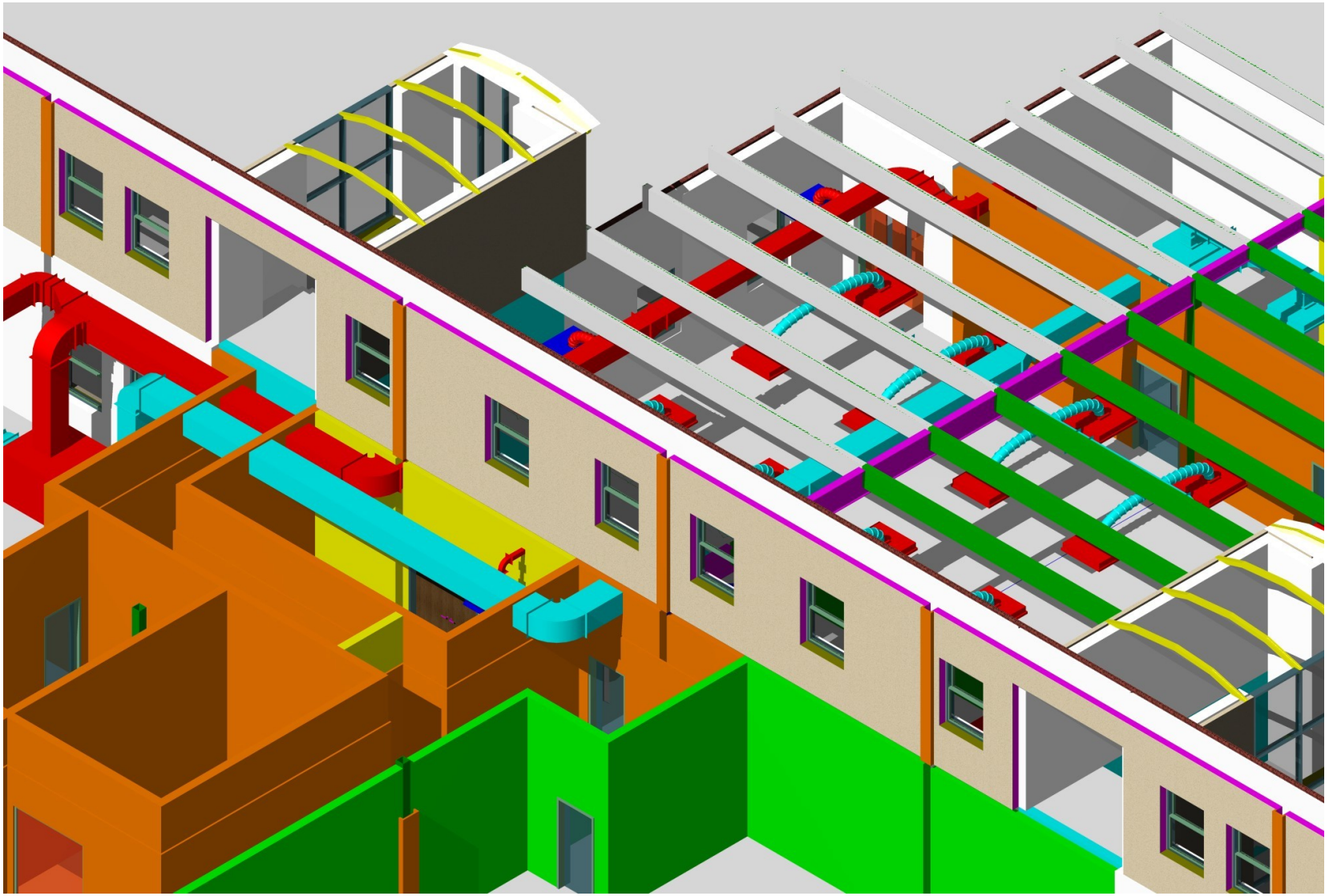
Technically: **BIM is a digital representation of physical and functional characteristics of a facility serving as a shared knowledge resource for information and forming a reliable basis for decisions during its life-cycle from inception onward.**

Moving from 2D drawings to 3D models with Intelligence/Data



The National BIM Standard *is part of the global building SMART Information Delivery Manual Initiative.*

Final Renderings



Interference Checks/Contractor Planning Tool/Subcontractor Management

More about this BIM stuff

- Conversion to BIM parallels the switch from manual drawings to CADD

- Data evolves from design thru construction, commissioning to facility management (ultimately benefits the installations)

- Integrate Civil, Facility Management, and GIS data

- Use BIM in planning, construction & maintenance of building

- Upgrade standard Cost Estimating data and coordination with Cost databases via .xml to automate pricing real time

7

MBP Summary

- Multiple goals, objectives & expectations.
- Many stake holders with interests & needs…sometimes conflicting.
- More to do with less resources, time & funds than ever before in history.
- Failure is not an option; we are seeing success.
- Working together is our only way to succeed…Call the COS.

MBP Summary

- For more info, visit the COS website https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx

Please submit your training evaluatio